MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL – 624 102

DEPARTMENT OF COMPUTER APPLICATIONS

BCA

Curriculum Framework, Syllabus, and Regulations

(Choice Based Credit System –CBCS)

(For the candidates to be admitted from the Academic Year 2026-2027 onwards)

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LO 1Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate programme of study.

LO 2 Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

LO 3 Critical thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

LO 4 Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

LO 5 Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyse and synthesise data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

LO 6 Research-related skills: A sense of inquiry and capability for asking relevant/ appropriate questions, problematizing, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation.

LO 7 Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team. 8 Learning Outcomes-based Curriculum Framework for Undergraduate Education

LO 8 Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective. =

LO 9 Reflective thinking: Critical sensibility to lived experiences, with self-awareness and reflexivity of both self and society.

LO 10 Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

LO 11 Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

LO 12 Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

LO 13 Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

LO 14 Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

LO 15 Lifelong learning: Ability to acquire knowledge and skills, including 'learning how to learn', that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

Mother Teresa Women's University, Kodaikanal

DEPARTMENT OF COMPUTER APPLICATIONS

Bachelor of Computer Applications (BCA)

1. About the Department

The Department of Computer Applications is a three-year undergraduate course which deals with Information Technology and Computer Applications. The course imparts knowledge about different computer applications and how to solve and address the problems which arise from a computer and its applications. The course includes subjects such as core programming languages Java and C++, data structure, networking and others. BCA provides various opportunities to the students who wish to pursue their career in IT industry.

2. Programme Educational Objectives (PEOs)

PEO1	**Professional Competence**: Graduates will apply fundamental knowledge of computer applications, programming, and modern IT tools to solve real-world problems effectively in the IT industry.
PEO 2	**Career & Higher Education** : Graduates will pursue successful careers in IT and related fields or continue higher education such as MCA, MBA, or other professional programs
PEO 3	**Innovation & Lifelong Learning:** Graduates will demonstrate continuous learning, adaptability, and innovation to keep pace with evolving technologies and global trends.

3. Programme Outcomes (PO)

On completion of BCA, students will be able to

PO1	Apply knowledge of computer fundamentals, programming, and mathematics to solve computing problems
PO2	Analyze problems and identify appropriate computing solutions using logical and analytical skills.
PO3	Demonstrate problem-solving, critical thinking, and logical reasoning skills in the field of computer applications.
PO4	Communicate effectively and work collaboratively in multidisciplinary teams with professional ethics and social responsibility.
PO5	Adapt to emerging technologies, pursue higher education, entrepreneurship, and lifelong learning in the IT industry.

4. **Programme Specific Outcomes (PSOs)**

On completion of BCA Programme, students will be able to

PSO1	Develop software applications using programming languages such as C, C++, Java, Python, and web technologies
PSO2	Design and manage database systems, networking concepts, and computer security solutions for business and industry needs.
PSO3	Apply knowledge in mobile computing, cloud computing, data analytics, and recent IT trends for professional growth.

5. **Alignment of Programme Outcomes with the Vision and Mission of Mother Teresa Women's University**

University Vision

"Holistic Empowerment of Women through Education"

Programme Outcome	**Contribution to the University Vision**
PO1: Apply knowledge of computer fundamentals, programming, and mathematics to solve computing problems.	Empowers women with strong foundational knowledge in computer science, programming, and mathematical concepts, enabling them to solve computing problems confidently and build a strong professional foundation.
PO2: Analyze problems and identify appropriate computing solutions using logical and analytical skills.	Develops analytical thinking, logical reasoning, and decision-making abilities, empowering women to identify, evaluate, and implement effective computing solutions for real-world challenges.
PO3: Demonstrate problem-solving, critical thinking, and logical reasoning skills in the field of computer applications.	Enhances critical thinking and innovative problem-solving skills, enabling women to address complex computing challenges effectively and contribute meaningfully to technological development and society.
PO4: Communicate effectively and work collaboratively in multidisciplinary teams with professional ethics and social responsibility.	Promotes holistic development by nurturing communication, teamwork, leadership, ethical values, and social responsibility, preparing women to become competent professionals and responsible citizens.
PO5: Adapt to emerging technologies, pursue higher education, entrepreneurship, and lifelong learning in the IT industry.	Encourages lifelong learning, adaptability, innovation, and entrepreneurial mindset, empowering women to continuously upgrade their skills, embrace technological advancements, and achieve career excellence.

Mapping of Programme Outcomes with University Vision

Vision Components	PO1	PO2	PO3	PO4	PO5
Knowledge Empowerment	√	√	√		√
Technical Empowerment	√	√	√		√
Professional & Social Empowerment			√	√	
Holistic Development				√	√
Lifelong Learning & Leadership				√	√

University Mission

M1: To promote a society of equal status between women and men.
M2: To empower women through education at all levels.
M3: To impart education of global standards.

Mapping Scale

Value	Level of Correlation
3	High
2	Moderate
1	Low
–	No Correlation

Mission–PO Mapping Matrix

Mission Statements / Pos	PO1	PO2	PO3	PO4	PO5
M1: Promote a society of equal status between women and men	1	2	2	3	3
M2: Empower women through education at all levels	3	3	3	3	3
M3: Impart education of global standards	3	3	3	2	3

6. **Eligibility:** Hr. Sec. with Mathematics as one of the Subjects.
7. **General Guidelines for UG Programme**
    a. Duration: 3 Years
    b. Medium of Instruction**:** English
8. **Evaluation (40+60):** Evaluation of the candidates shall be through Internal Assessment and External Examination for Theory and Practical.

8.1 Evaluation Pattern

EVALUATION PATTERN		Maximum Marks (Theory & Practical)	Minimum Marks (Theory & Practical)
Internal Evaluation	Continuous Internal Assessment	40 Marks	16 Marks
External Evaluation	End Semester Examination	60 Marks	24 Marks
Total		**100 Marks**	**40 Marks**

8.2 Internal Assessment - CIA (40 Marks)

The Continuous Internal Assessment (CIA) for each course includes written test and assignments for a maximum of 40 marks.

Assignment (any type): 10 Marks

Seminar / Presentation: 10 Marks

Test (Best 2 out of 3): 15 Marks

Quiz/MCQ: 5 Marks

8.3 **End Semester Examination (Theory):** Max.Marks:60 Time: 3hrs.

Part–A (5x2=10 Marks) - Answer ALL questions - Each Question carries 2marks

Part–B (5x4=20 Marks) - Answer ALL questions - Each question carries 4 Marks - Either or Type

Part-C (3x 10 = 30 Marks) - Answer ALL questions - Each question carries 10 Marks -Either or Type.

8.4 **Written Examination Question Paper Pattern (Common for PG Programmes)**

Intended Learning Skills	**Maximum 60 Marks Passing Minimum: 50% Duration: Three Hours**
Memory Recall/Example/ Counter Example / Knowledge about the Concepts/Understanding K1& K2	**Part–A (5x2=10 Marks)** Answer ALL questions **Each Question carries 2marks** One questions from each Unit **Question 1to 5**
Descriptions/Application / Analysis/Synthesis / Evaluation K3, K4, K5	**Part–B (5x4=20 Marks) Answer** **ALL questions** **Each question carries 4 Marks** **Either - or Type** Both parts of each question from the same Unit and K Level **Question 6(a) or 6(b)** to **Question 10(a) or 10(b)**

Analysis/Synthesis / Evaluation K4, K5	**Part-C (3x 10 = 30 Marks)** Answer ALL questions **Each question carries 10 Marks** **From any unit based on weightage** **Either - or Type** Both parts of each question from the same K Level **Question 11(a) or 11(b)** **To** **Question 13(a) or 13(b)**

Sample UG Question Paper Pattern (End Semester Written Examination)

Q. NO	QUESTIONS	K LEVEL	UNIT NO.	COUSE OUTCOME NO.	PROBLEM OR THEORY QUESTION (P/T)
	SECTION A ANSWER THE FOLLOWING				**(5*2=10)**
1.		**K1/K2**	**1**	**CO1**	**(P/T)**
2.		**K1/K2**	**2**	**CO1**	**(P/T)**
3.		**K1/K2**	**3**	**CO1**	**(P/T)**
4.		**K1/K2**	**4**	**CO1**	**(P/T)**
5.		**K1/K2**	**5**	**CO1**	**(P/T)**
	SECTION B ANSWER THE FOLLOWING				**(5*4=20)**
6A		**K3**	**1**	**CO2**	**(P/T)**
	(OR)				
6B		**K3**	**1**	**CO2**	**(P/T)**
7A		**K3**	**2**	**CO2**	**(P/T)**
	(OR)				
7B		**K3**	**2**	**CO2**	**(P/T)**
8A		**K4**	**3**	**CO3**	**(P/T)**
	(OR)				
8B		**K4**	**3**	**CO3**	**(P/T)**
9A		**K5**	**4**	**CO4**	**(P/T)**
	(OR)				
9B		**K5**	**4**	**CO4**	**(P/T)**
10A		**K5**	**5**	**CO4**	**(P/T)**
	(OR)				
10B		**K5**	**5**	**CO4**	**(P/T)**
	SECTION C ANSWER THE FOLLOWING				**(3*10=30)**
11A		**K4**	**1**	**CO3**	**(P/T)**
	(OR)				
11B		**K4**	**2**	**CO3**	**(P/T)**
12A		**K4**	**3**	**CO3**	**(P/T)**
	(OR)				
12B		**K4**	**4**	**CO3**	**(P/T)**
13A		**K5**	**5**	**CO4**	**(P/T)**
	(OR)				
13B		**K5**	**(optional)***	**CO4**	**(P/T)**
• **From any unit based on weightage**					

WEIGHTAGE

Lower Level	**- K1, K2 Level**	**- 10 Marks**	**- 17%**
Intermediate Level	**- K3, K4 Level**	**- 32 Marks**	**- 53%**
Higher Level	**- K5, K6 Level**	**- 18 Marks**	**- 30%**
	Total	**- 60 marks**	**- 100%**

Internal Written Examination Pattern

Intended Learning Skills	**Maximum 60 Marks Passing Minimum: 50% Duration: Three Hours**
Memory Recall/Example/ Counter Example / Knowledge about the Concepts/Understanding K1& K2	**Part–A (4x2=08 Marks)** Answer ALL questions **Each Question carries 2marks** Internal Test Portion **Question 1 to 4**
Application / Analysis/Synthesis / Evaluation K3, K4, K5	**Part–B (3x4=12 Marks)** Answer ALL questions **Each question carries 4 Marks Either - or Type** Both parts of each question from the same K Level / Internal Test Portion **Question 5(a) or 5(b)** to **Question 7 (a) or 7 (b)**
Analysis/Synthesis / Evaluation/Create K5	**Part-C (1x 10 = 10 Marks)** Answer ALL questions **Each question carries 10 Marks** **From any unit based on weightage** **Either - or Type** Both parts of each question from the same K Level / Internal Test Portion **Question 8 (a) or 8 (b)**

Sample Question Paper Pattern (Internal Written Examination)

Q. NO	QUESTIONS	K LEVEL	UNIT NO.	COUSE OUTCOME NO.	PROBLEM OR THEORY QUESTION (P/T)
	SECTION A ANSWER THE FOLLOWING				**(4*2=8)**
1.		K1/K2	Internal Test Portion	CO1	(P/T)
2.		K1/K2		CO1	(P/T)
3.		K1/K2		CO1	(P/T)
4.		K1/K2		CO1	(P/T)
	SECTION B ANSWER THE FOLLOWING				**(3*4=12)**
5A		K3	Internal Test Portion	CO2	(P/T)
	(OR)				
5B		K3		CO2	(P/T)
6A		K4		CO3	(P/T)
	(OR)				
6B		K4		CO3	(P/T)
7A		K5		CO4	(P/T)
	(OR)				
7B		K5		CO4	(P/T)
	SECTION C ANSWER THE FOLLOWING				**(1*10=10)**
8A		K5	Internal Test Portion	CO4	(P/T)
	(OR)				
8B		K5		CO4	(P/T)

WEIGHTAGE

Lower Level	**- K1, K2 Level**	**- 08 Marks**	**- 27%**
Intermediate Level	**- K3, K4 Level**	**- 08 Marks**	**- 27%**
Higher Level	**- K5, K6 Level**	**- 14 Marks**	**- 46%**
	Total	**- 30 marks**	**- 100%**

8.5 Methods of Assessment

METHODS OF ASSESSMENT	
Remembering (K1)	• The lowest level of questions requires students to recall information from the course content • Knowledge questions usually require students to identify information in the textbook.
Understanding (K2)	• Understanding of facts and ideas by comprehending organizing, comparing, translating, interpolating and interpreting in their own words. • The questions go beyond simple recall and require students to combine data together
Application (K3)	• Students have to solve problems by using / applying a concept learned in the classroom. • Students must use their knowledge to determine a exact response.
Analyze (K4)	• Analyzing the question is one that asks the students to break down something into its component parts. • Analyzing requires students to identify reasons causes or motives and reach conclusions or generalizations.
Evaluate (K5)	• Evaluation requires an individual to make judgment on something. • Questions to be asked to judge the value of an idea, a character, a work of art, or a solution to a problem. • Students are engaged in decision-making and problem –solving. • Evaluation questions do not have single right answers.
Create (K6)	• The questions of this category challenge students to get engaged in creative and original thinking. • Developing original ideas and problem solving skills

9. Project

9.1Project Report

A student should select a topic for the Project Work at the end of the fifth semester itself and submit the Project Report at the end of the sixth semester. The Project Report shall not be less than 30 typed pages in Times New Roman font with 1.5 line space.

9.2 Project Evaluation

There is a Viva Voce Examination for Project Work. The Guide and an External Examiner shall evaluate and conduct the Viva Voce Examination. The Project Work carries 100 marks (Internal: 40 Marks; External (Viva): 60 Marks)

10. Conversion of Marks to Grade Points and Letter Grade (Performance in a Course/Paper)

Range of Marks	Grade Points	Letter Grade	Description
90 – 100	9.0 – 10.0	O	Outstanding
80-89	8.0 – 8.9	D+	Excellent
75-79	7.5 – 7.9	D	Distinction
70-74	7.0 – 7.4	A+	Very Good
60-69	6.0 – 6.9	A	Good
50-59	5.0 – 5.9	B	Average
40-49	4.0 - 4.9	C	Satisfactory
00-39	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

11. Attendance

Students must have earned 75% of attendance in each course for appearing for the examination. Students with 71% to 74% of attendance must apply for condonation in the Prescribed Form with prescribed fee. Students with 65% to 70% of attendance must apply for condonation in the Prescribed Form with the prescribed fee along with the Medical Certificate. Students with attendance less than 65% are not eligible to appear for the examination and they shall re-do the course with the prior permission of the Head of the Department, Principal and the Registrar of the University.

12.Any Other Information

In addition to the above mentioned regulations, any other common regulations pertaining to the PG Programmes are also applicable for this Programme.

13.Academic Documentation

a.	Academic Schedule	**q.**	Laboratory Experiments related to the Courses
b.	Students Name List	**r.**	Internal Question Paper
c.	Time Table	**s.**	External Question Paper
d.	Syllabus	**t.**	Sample Home Assignment Answer Sheets
e.	Lesson Plan	**u.**	Three best, three middle level and three average Answer sheets
f.	Staff Workload	**v.**	Result Analysis
g.	Course Design (content, Course Outcomes (COs), Delivery method, mapping of COs with Programme Outcomes (POs), Assessment Pattern in terms of Revised Bloom's	**w.**	Question Bank Preparation (Semester / Competitive exams-NET, SET, GATE)

	Taxonomy).		
h.	Sample CO Assessment Tools	**x.**	List of mentees and their academic achievements
i.	Faculty Course Assessment Report(FCAR)		
j.	Course Evaluation Sheet		
k.	Teaching Materials (PPT, OHP etc)		
l.	Lecture Notes		
m.	Home Assignment Questions		
n.	Tutorial Sheets		
o.	Remedial Class Record, if any		
p.	Projects related to the Course		

14. CURRICULUM STRUCTURE FOR UG PROGRAMME

Bachelor of Computer Applications

SEMESTER-I							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
I	U26TAL101	Language-1–Tamil	3	6	40	60	100
II	U26ENL101	Language-2–English	3	6	40	60	100
III	U26CAT101	**Core-1:** OOPS using C++ & Data Structures	4	5	40	60	100
	U26CAP102	**Core 2: Practical:** OOPS using C++ & Data Structures Lab	3	5	40	60	100
	U26CAA11	**Allied-1 :** Digital Computer Fundamentals	3	4	40	60	100
IV	U26CAAE11	**Ability Enhancement Course – 1:** Programming in C	2	2	40	60	100
	U26CSS101	**SEC 1- Computer Applications** (Common Paper)	2	2	40	60	100
		Total	**20**	**30**			**700**

SEMESTER-II							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
I	U26TAL202	Language-1–Tamil	3	6	40	60	100
II	U26ENL202	Language-2–English	3	6	40	60	100
III	U26CAT203	**Core-3:** Operating System	4	5	40	60	100
	U26CAP204	**Core-4:** Practical: Web Application Development Lab	3	5	40	60	100
	U26CAA22	**Allied 2 :** Multimedia & Its Applications Lab	3	4	40	60	100
IV	U26VAE201	Value Education	2	2	40	60	100
	U26CANM21 / U26CAS202	Naan Mudhalvan-1 / Skill Enhancement Course(SEC-2) -Photoshop	2	2	40	60	100
	Total		**20**	**30**			**700**

SEMESTER-III							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
I	U26TAL303	Language -1 - Tamil	3	6	40	60	100
II	U26ENL303	Language- 2 - English	3	6	40	60	100
III	U26CAT305	**Core- 5:** Python Programming	4	5	40	60	100
	U26CAP306	**Core-6:** Practical : Python Programming Lab	3	5	40	60	100
	U26CAA33	**Allied 3-** Accounting and Financial Management	3	4	40	60	100
IV	U26CANM32/ U26CAS303	Naan Mudhalvan-2 / Skill Enhancement Course (SEC-3) - Excel for Data	2	2	40	60	100

		Analytics Lab					
	U26EVS301	EVS	2	2	40	60	100
	U26CAV301	Value Added Course – 1: Fundamentals of Computers (Additional Credit)	1*		100		100
		Total	**20 +1***	**30**			**700**

SEMESTER-IV							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
I	U26TAL404	Language -1- Tamil	3	6	40	60	100
II	U26ENL404	Language-2- English	3	6	40	60	100
III	U26CAT407	**Core-7:** Database Management System	4	5	40	60	100
	U26CAP408	**Core-8:** Database Management System Lab	3	5	40	60	100
	U26CAA44	**Allied 4:** Numerical Methods	3	4	40	60	100
IV	U26CANM43/U26CAS404	Naan Mudhalvan-3 / Skill Enhancement Course (SEC-4) – AI tools	2	2	40	60	100
	U26CAN401	**Non Major Elective -1:** Web Designing Lab	2	2	40	60	100
	Total		**20**	**30**			**700**

SEMESTER-V							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
III	U26CAT509	**Core- 9:** Computer Networks	4	6	40	60	100
	U26CAT510	**Core- 10:** Programming in Java	4	6	40	60	100
	U26CAP511	**Core11:** Programming in Java Lab	3	5	40	60	100
	U26CAT512	**Core 12:** - Software Engineering	3	5	40	60	100
	U26CAE51A/ U26CAE51B/ U26CAE51C	**Elective 1:** A. Cloud Computing / B. Cyber Security / C. Artificial Intelligence	3	4	40	60	100
	U26CAI501	Internship	1	-	100		100
IV	U26DMG501	Generic Course I–Disaster Management	2	2			100
	U26CANM54/ U26CAS505	Naan Mudhalvan-4 / Skill Enhancement Course (SEC-4) Yoga for Human Excellence	2	2			100
		Total	**22**	**30**			**800**

SEMESTER-VI							
Part	**Course Code**	**List of Course**	**Credits**	**Hrs.**	**Internal**	**External**	**Marks**
III	U26CAT613	**Core- 13:** Machine Learning	4	6	40	60	100
	U26CAT614	**Core- 14:** Data Analytics using	4	6	40	60	100

		R Programming					
	U26CA615	**Core- 15:**Practical- R Programming Lab	3	6	40	60	100
	U26CAP61	**Core- 16:**Project	3	10	40	60	100
IV	U26CANM65/ U26CAS605	Naan Mudhalvan-5 / Skill Enhancement Course (SEC-5) Employability Readiness	2	2	40	60	100
V	U26EAS601	Extension Activity ((NSS/NCC/YRC /RRC/ CLUB ACTIVITIES / SCIENCE FORUM/ PHYSICAL EDUCATION)	2	-	100		100
	U26CAO601	Online /SWAYAM MOOCs /NPTEL/ Professional Certificate Course(Additional Credit)*	2*	-		100	100
		Total	**18+2***	**30**			**700**
		Grand Total	**120**				**4400**

*** Additional credit papers**

- VAC in the third semester is mandatory.
- Online / SWAYAM/ MOOC / NPTEL course is mandatory. It can be done anytime during the course but will be reflected in the 6th semester only.

* **Extension Activity:**

Extension activity includes participation in NSS/NCC/RRC/ Science Forum/Physical Education.

Total marks: 100 (Purely internal) Credits: 2

Course Code	U26CAT101	Semester I	Year I	Credits	L	T	P	Hrs
Core/ Elective	CORE- 1- OOPS USING C++ & DATA STRUCTURE			4		Y		5
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Understand the fundamental concepts of Object-Oriented Programming and apply C++ programming constructs such as control structures, functions, and function overloading to develop simple programs. 2. Develop and implement classes and objects in C++ using constructors, destructors, static members, friend functions, and arrays of objects for real-world problem solving. 3. Apply advanced object-oriented concepts including operator overloading, inheritance, polymorphism, type conversion, and abstract classes in program design. 4. Analyze and implement various tree data structures such as binary trees, AVL trees, B-Trees, heaps, and their applications in efficient data organization and retrieval. 5. Design and evaluate searching, sorting, and hashing techniques to improve the efficiency of data processing and storage operations.							
Units	Course Contents							
Unit I	Introduction to C++ - key concepts of Object-Oriented Programming – Advantages – Object Oriented Languages – I/O in C++ - C++ Declarations. Control Structures : - Decision Making and Statements : If ..else, jump, goto, break, continue, Switch case statements - Loops in C++ :for, while, do - functions in C++ - inline functions – Function Overloading.							
Unit II	Classes and Objects: Declaring Objects – Defining Member Functions – Static Member variables and functions – array of objects –friend functions – Overloading member functions – Bit fields and classes – Constructor and destructor with static members.							
Unit III	Operator Overloading: Overloading unary, binary operators – Overloading Friend functions –type conversion – Inheritance: Types of Inheritance – Single, Multilevel, Multiple, Hierarchal, Hybrid, Multi path inheritance – Virtual base Classes – Abstract Classes.							
Unit IV	Tree ADT-tree traversals-Binary Tree ADT-expression trees-applications of trees-binary search tree ADT- Threaded Binary Trees-AVL Trees- B-Tree- B+ Tree – Heap-Applications of heap.							
Unit V	Searching- Linear search-Binary search-Sorting-Bubble sort-Selection sort-Insertion sort-Shell sort-Radix sort-Hashing-Hash functions-Separate chaining- Open Addressing-Rehashing Extendible Hashing							
Question paper Coverage - 100% theory								
Text book	1. Mark Allen Weiss, “Data Structures and Algorithm Analysis in C++”, Pearson Education 2014, 4th Edition. 2. E. Balagurusamy, “Object-Oriented Programming with C++”, TMH 2013, 7th Edition. **3.** Reema Thareja, “Data Structures Using C”, Oxford Universities Press 2014, 2nd Edition.							
Reference Book	1. Thomas H.Cormen, Chales E.Leiserson, Ronald L.Rivest, Clifford Stein, “Introduction to Algorithms”, McGraw Hill 2009, 3rd Edition. 2. Aho, Hopcroft and Ullman, “Data Structures and Algorithms”, Pearson Education 2003. 3. Ashok N Kamthane, “Object-Oriented Programming with ANSI and Turbo C++”, Pearson Education 2003. **4.** Maria Litvin& Gray Litvin, “C++ for you”, Vikas publication 2002.							

E-Reference	1. NPTEL & MOOC courses titled Data Structures 2. https://nptel.ac.in/courses/106106127/

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of Object-Oriented Programming, C++ syntax, control structures, functions, classes, objects, trees, searching, sorting, and hashing techniques used in problem solving and data organization.	K1 & K2	LO1, LO4, LO5, LO10, LO11
CO2	Apply C++ programming concepts, object-oriented techniques, tree structures, searching, sorting, and hashing algorithms to develop solutions for computational problems.	K3	LO3, LO4, LO6, LO8, LO10
CO3	Analyze the performance and behavior of object-oriented models, inheritance structures, tree traversals, searching methods, sorting techniques, and hashing mechanisms for efficient problem solving.	K4	LO3, LO5, LO8, LO9, LO11
CO4	Evaluate the effectiveness of object-oriented programming techniques, advanced tree structures, searching and sorting algorithms, and hashing methods in solving real-world computing problems.	K5	LO2, LO5, LO7, LO9, LO13
CO5	Design and develop efficient C++ applications using object-oriented principles, inheritance, advanced tree structures, searching, sorting, and hashing techniques to solve complex computational problems.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	3	2	2.40	3	2	2	2.33	
CO2	3	3	2	3	2	2.60	3	3	2	2.67	
CO3	3	3	3	2	2	2.60	3	3	3	3.00	
CO4	2	3	3	3	3	2.80	3	3	2	2.67	
CO5	3	3	3	3	3	3.00	3	3	3	3.00	
Overall score for PO						**2.68**	**Overall score for PSO**			**2.73**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Interactive Discussion,	Class Tests, Assignment Programs, Viva Voce, Quiz,

Demonstration, Problem Solving Sessions, Programming Practice	Lab Exercises
Lecture and Demonstration, Hands-on Coding Sessions, Peer Learning, Case Study Method	Programming Assignments, Practical Evaluation, Observation Record, Internal Tests
Concept-Based Teaching, UML/Class Diagram Discussions, Coding Practice, Seminar Presentation	Model Examination, Debugging Exercises, Mini Projects, Oral Presentation
Algorithm Demonstration, Data Structure Visualization, Problem Analysis, Collaborative Learning	Algorithm Writing Test, Practical Lab Assessment, Record Submission, Viva Voce
Lecture Method, Algorithm Tracing, Programming Exercises, Comparative Analysis Activities	Coding Tests, Performance Analysis Assignments, Unit Test, End Semester Practical Examination

Course Code	U26CAP102	Semester I	Year I	Credits	L	T	P	Hrs
Core/ Elective	CORE- 2: PRACTICAL: OOPS USING C++ & DATA STRUCTURE LAB			3			Y	5
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Understand the fundamental concepts of C++ programming, including data types, operators, control structures, functions, and object-oriented programming principles. 2. Develop C++ programs using classes, objects, constructors, destructors, static members, friend functions, and function overloading to solve basic programming problems. 3. Apply object-oriented programming concepts such as inheritance, operator overloading, and Binary Search Tree operations to design efficient software solutions. 4. Implement searching, sorting, and stack operations using appropriate algorithms and data structures to improve computational efficiency. 5. Design and test C++ applications by integrating object-oriented programming concepts and data structures to solve real-world problems while enhancing logical reasoning, problem-solving, and programming skills.							
S.NO	LAB PROGRAMES							
1.	Write a C++ program to perform arithmetic operations using operators.							
2.	Write a C++ program to find the largest of three numbers using if–else statement.							
3.	Write a C++ program to implement a simple calculator using switch-case							
4.	Write a C++ program to print the multiplication table using for loop.							
5.	Write a C++ program to find the factorial of a number using a function.							
6.	Write a C++ program to demonstrate function overloading.							
7.	Write a C++ program to define a class and create objects to display student details.							
8	Write a C++ program to demonstrate static data members and static member functions.							
9.	Write a C++ program to demonstrate friend function							
10.	Write a C++ program to implement constructor and destructor.							
11.	Write a C++ program to demonstrate unary and binary operator overloading.							
12.	Write a C++ program to demonstrate single inheritance.							
13.	Write a C++ program to demonstrate multilevel inheritance							
14.	Write a C++ program to demonstrate hierarchical inheritance.							
15.	Write a C++ program to perform Push and Pop operations in a Stack.							
16.	Write a C++ program to implement Binary Search Tree (BST) insertion and searching.							
17.	Write a C++ program to sort an array using Bubble Sort and Selection Sort							
18.	Write a C++ program to sort an array using Insertion Sort.							
19.	Write a C++ program to implement Stack using an array							
20.	Write a C++ program to display the elements of a Stack.							

Question paper Coverage - 100% Practical

E-Reference

1. https://www.geeksforgeeks.org/stack-data-structure
2. www.programquiz.com
3. www.tutorialpoint.com
4. www.javatpoint.com

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of C++ programming, including operators, control structures, functions, and basic object-oriented programming principles.	K1 & K2	LO1, LO5, LO10, LO11
CO2	Apply C++ programming techniques to develop programs using functions, classes, objects, constructors, destructors, static members, and friend functions.	K3	LO1, LO4, LO5, LO10, LO11
CO3	Analyze and implement object-oriented programming concepts such as function overloading, operator overloading, inheritance, and Binary Search Tree operations to solve programming problems.	K4	LO3, LO4, LO5, LO8, LO10, LO11
CO4	Evaluate searching, sorting, and stack operations by selecting appropriate algorithms and data structures for efficient problem solving.	K5	LO3, LO6, LO8, LO9, LO13, LO15
CO5	Design and develop C++ applications using object-oriented programming concepts, data structures, and algorithms to solve real-world computational problems effectively.	K5 / K6	LO2, LO3, LO6, LO7, LO10, LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	2	2	2.20	3	2	2	2.33	
CO2	3	3	3	2	2	2.60	3	3	2	2.67	
CO3	3	3	3	2	2	2.60	3	3	2	2.67	
CO4	2	3	3	3	3	2.80	2	3	3	2.67	
CO5	3	3	3	3	3	3.00	3	3	3	3.00	
Overall score for PO						**2.64**	**Overall score for PSO**			**2.67**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Demonstration, Hands-on Programming, Peer Learning	Program Evaluation, Viva Voce, Lab Observation, Record Assessment
Interactive Lecture, Coding Practice, Collaborative	Practical Test, Assignment Evaluation, Viva Voce,

Learning, Problem Solving	Debugging Assessment
Algorithm Demonstration, Activity-Based Learning, Programming Practice, Discussion Method	Lab Performance, Unit Test, Oral Examination, Output Verification
Lecture and Demonstration, Self-Learning Activity, Programming Exercises, Peer Discussion	Practical Evaluation, Quiz, Record Submission, Viva Voce

Course Code	U26CAA11	Semester I	Year I	Credits	L	T	P	Hrs
Core/ Elective	**ALLIED –I: Digital Computer Fundamentals**			3		Y		4
Nature of the Course	**SKILL ENHANCEMENT**							
Learning objectives	1. Understand the fundamentals of number systems, binary codes, Boolean algebra, and digital logic concepts used in computer systems. 2. Apply Boolean laws, K-Map simplification techniques, and binary arithmetic operations to solve digital logic problems. 3. Analyze the working principles of combinational and sequential logic circuits such as multiplexers, decoders, flip-flops, registers, and counters. 4. Evaluate different digital circuit designs and memory organizations for efficient data processing and storage applications. 5. Design basic digital logic systems using combinational and sequential circuit components for real-time computing applications							
Units	**Course Contents**							
Unit I	**Number Systems and Codes:** Number System–Base Conversion – Binary Codes – Code Conversion. Digital Logic: Logic Gates – Truth Tables – Universal Gates.							
Unit II	**Boolean Algebra:** Laws and Theorems – SOP, POS Methods – Simplification of Boolean Functions–Using Theorems, K-Map, Prime–Implicant Method–Binary Arithmetic: Binary Addition – Subtraction – Various Representations of Binary Numbers–Arithmetic Building Blocks–Adder–Subtractor.							
Unit III	**Combinational Logic:** Multiplexers – De-multiplexers – Decoders – Encoders –Code Converters–Parity Generators and Checkers.							
Unit IV	**Sequential Logic:** RS, JK, D and T Flip-Flops–Master-Slave Flip-Flops. **Registers:** Shift Registers–Types of Shift Registers.							
Unit V	**Counters:** Asynchronous and Synchronous Counters - Ripple, Mod, Up-Down Counters– Ring Counters. Memory: Basic Terms and Ideas –Types of ROMs –Types of RAMs.							
Question paper Coverage - 100% theory								
Text book	1. **M. Morris Mano & Michael D. Ciletti**, *Digital Design*, 6th Edition, Pearson Education, 2018. 2. **Donald P. Leach, Albert Paul Malvino & Goutam Saha**, *Digital Principles and Applications*, 8th Edition, McGraw Hill Education, 2015. 3. **Thomas L. Floyd**, *Digital Fundamentals*, 11th Edition, Pearson Education, 2015. 4. **R.P. Jain**, *Modern Digital Electronics*, 5th Edition, McGraw Hill Education, 2018.							
Reference Book	1. **T.C. Bartee**, Digital Computer Fundamentals, 6th Edition, Tata Mc Graw Hill,1991. 2. **Charles H. Roth Jr. & Larry L. Kinney**, *Fundamentals of Logic Design*, Cengage Learning, 2014. 3. **John F. Wakerly**, *Digital Design: Principles and Practices*, 5th Edition, Pearson Education, 2018. 4. **A. Anand Kumar**, *Fundamentals of Digital Circuits*, 4th Edition, PHI Learning, 2016.							

E-Reference	1. NPTEL & MOOC courses titled Computer Fundamentals. 2. https://onlinecourses.swayam2.ac.in/cec19_cs06/preview 3. https://onlinecourses.swayam2.ac.in/cec21_cs17/preview

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of number systems, binary codes, Boolean algebra, logic gates, truth tables, combinational logic circuits, sequential circuits, counters, and memory devices used in digital computer systems.	K1 & K2	LO1, LO5, LO10
CO2	Apply Boolean laws, K-Map techniques, binary arithmetic operations, and digital logic principles to solve problems and implement basic combinational and sequential logic circuits.	K3	LO4 ,LO5 ,LO10
CO3	Analyze the operation and performance of combinational and sequential circuits such as multiplexers, decoders, encoders, flip-flops, registers, and counters for different digital system applications.	K4	LO3, LO5 ,LO8
CO4	Evaluate different methods of Boolean simplification, arithmetic circuits, memory organizations, and counter designs to determine suitable digital solutions for specific computational requirements.	K5	LO3, LO4, LO8, LO11
CO5	Design and develop basic digital logic systems using combinational and sequential building blocks, applying appropriate digital techniques for efficient computer hardware implementation.	K5 / K6	LO4 , LO5, LO10, LO11, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	2	1	1	1.3	
CO2	3	3	3	1	2	2.4	3	2	1	2.0	
CO3	2	3	3	1	2	2.2	2	3	2	2.3	
CO4	2	3	3	1	2	2.2	2	3	2	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.7	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.12**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Lecture Method, Chalk and Talk, Demonstration of Logic Gates, PPT Presentation, Problem-Solving Sessions, Tutorial Practice	Class Tests, Quiz, Assignment, Numerical Problem Solving, Oral Questions

Interactive Lecture, Worked Examples, K-Map Practice Sessions, Peer Learning, Digital Circuit Demonstration	Unit Test, Worksheet Exercises, Problem-Based Assessment,
Lecture with Circuit Diagrams, Simulation Demonstration, Group Discussion, Case-Based Learning	Circuit Design Exercises, Quiz, Model Examination, Seminar/Presentation
Concept-Oriented Teaching, Demonstration Method, Laboratory Practice, Collaborative Learning	Practical Record Evaluation, Observation, Viva-Voce, Internal Test
Lecture and Discussion, Problem Analysis, Hardware Demonstration, Self-Learning Activities	End Unit Test, Assignment, Practical Problems, Semester Examination

Course Code	U26CAAE11	Semester I	Year I	Credits	L	T	P	Hrs	
Core/ Elective	ABILITY ENHANCEMENT COURSE – 1: Office Automation Lab			2				Y	2
Nature of the Course	Skill Enhancement								

Learning objectives	1. Create and format professional documents, tables, letters, and reports using advanced features of MS Word including page formatting, equations, tables, columns, and mail merge. 2. Apply spreadsheet functions and data analysis techniques in MS Excel to perform calculations, statistical analysis, conditional formatting, and data management tasks. 3. Analyze and organize academic and business data using formulas, logical functions, text functions, charts, and worksheet management tools in Excel. 4. Design effective multimedia presentations using MS PowerPoint with animations, transitions, audio, video, tables, images, and presentation design principles. 5. Develop practical digital documentation, communication, and presentation skills using MS Office applications for academic, professional, and real-world computing needs.
S.NO	**Course Contents**
MS-WORD	
1	Create a news-paper document with at least 200 words, a. Use margins as, top:1.5, bottom:2, left:2, right:1 inches. b. Use heading "Gandhi Jayanti", font size: 16, font color: red, font face: Arial Black. c. With first letter "dropped" (use drop cap option) of the first paragraph containing a picture at the right side d. Use three columns from the second paragraph onwards till the half of the page. e. Then use heading "Computer basics, f. Create paragraph using two columns till the end of the page.
2	Create a Mathematical question paper using, at least five equations a. With fractions, exponents, summation function b. With at least one „m*n" matrix c. Basic mathematical and geometric operators.
3	Create a Table a. Use proper text formatting, page color and page border b. Merge the second row into one cell, then split the second row into three cells. c. Use proper table border and color. d. Insert proper content into the table with proper text formatting. e. Use proper table border and color, content into the table with proper text formatting.
4	Create a table using two columns, a. The left column contains all the shortcut keys and right side column contains the function of the short-cut keys b. Insert a left column using layout option. Name the heading as Serial No.
5	Create two letters with the following conditions in Ms Word and find the difference. a. Write a personal letter to your friend using at least 100 words and two paragraphs. The date must be in top-right corner. Use „justify" text- alignment and 1.5 line spacing for the body of the letter. Letter must contain proper salutation and closing. b. Use step by step mail-merge wizard to design a letter. (Mailing step by step mail merge wizard letters start from a template select template letters select proper template create new document OK
6	Create a letter, which must be sent to multiple recipients. a. Use Mail-Merge to create the recipient list. b. Use excel sheet to enter the recipient. c. Start the mail merge using letter and directory format.
MS-EXCEL	

<table>
<tr><td>7</td><td>Create a table “Student result” with following conditions.
a. The heading must contain, Sl. No., Name, Mark1, Mark2, Mark3, Total, average and result with manual entry.
b. Use formulas for total and average.
c. Find the name of the students who has secured the highest and lowest marks.
d. Round the average to the nearest highest integer and lowest integer (use ceiling and floor function respectively).</td></tr>
<tr><td>8</td><td>Consider the problem of preparing a stationary order for the month of March. The item description, quantity and cost per item are available. The total cost per item is to be calculated and the final cost per item involves a sales tax of 2% over the total cost. The gross total and the net total are to be displayed.</td></tr>
<tr><td>9</td><td>Create a worksheet with the name, gender, attendance, assignment, midterm and final grades of five students. Find the total of the assessment marks. Students who pass need to have a total score greater than or equal to 50. Display the word "Pass" or "Fail" under a column called Description.</td></tr>
<tr><td>10</td><td>Create a worksheet with minimum 10 students of 5 Course marks and calculate the Maximum mark, minimum mark, mean, median, standard deviation and variance for each Course.</td></tr>
<tr><td>11</td><td>Given the below worksheet Write appropriate text functions in excel to calculate first name, last name and email id.
<table>
<tr><td>Full Name</td><td>First Name</td><td>Last Name</td><td>Mail_Id</td></tr>
<tr><td>Raja Karikalan</td><td>Raja</td><td>Karikalan</td><td>Raja_Karikalan@gmail.com</td></tr>
<tr><td>Kulothunga Chozhan</td><td>Kulothunga</td><td>Chozhan</td><td>Kulothunga_Chozhan@gmail.com</td></tr>
</table>
Note: Use Right, Left, Len and Concatenate functions</td></tr>
<tr><td>12</td><td>Do as directed
a. Create a notepad file as per the following fields Sl no name th1 th2 th3 th4 th5 total % grade,
b. Import this notepad file into excel sheet using „data from text‟ option.
Grade is calculated as, i. If %>=90, then grade A,ii. If %>=80 and =70 and =60 and =1000 with red color (use conditional formatting).</td></tr>
<tr><td colspan="2">MS- POWER POINT</td></tr>
<tr><td>13</td><td>Create a power-point presentation with minimum 5 slides.
a. The first slide must contain the topic of the presentation and name of the presentation.
b. Must contain at least one table,
c. Must contain at least 5 bullets, 5 numbers.</td></tr>
<tr><td>14</td><td>Create a power-point presentation with minimum 10 slides,
a. Insert at least one clip-art, one picture,
b. Insert at least one audio and one video,
c. Hide at least two slides</td></tr>
<tr><td>15</td><td>Create a power-point presentation with minimum 5 slides
a. Use custom animation option to animate the text; the text must move left to right one line at a time,
b. Use proper transition for the slides.</td></tr>
</table>

Question paper Coverage - 100% Practical

E-Reference

1. https://www.udemy.com/course/office-automation-certificate-course/
2. https://www.javatpoint.com/automation-tools

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes
CO1	Explain the fundamental features and functions of Microsoft Word, Microsoft Excel and Microsoft PowerPoint for office automation tasks.	K2	LO1, LO10, LO11
CO2	Apply document formatting, spreadsheet calculations, and presentation techniques using MS-Office applications for practical tasks	K3	LO4, LO5, LO10
CO3	Analyze and organize data, documents, and presentations using appropriate office tools, functions, and formatting techniques	K4	LO3, LO5, LO8
CO4	Evaluate suitable MS-Office features and methods for preparing professional documents, worksheets, and presentations effectively	K5	LO3, LO8, LO15
CO5	Create integrated office solutions using advanced features of Word, Excel, and PowerPoint for academic and business applications.	K6	LO4, LO10, LO11, LO14

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO2**	**PO3**	**PO 4**	**PO 5**	**Mean Score**	**PSO1**	**PSO2**	**PSO 3**	**Mean Score**	
CO1	3	1	1	1	2	1.6	2	1	1	1.3	
CO2	3	2	2	1	2	2.0	3	2	2	2.3	
CO3	2	3	3	1	2	2.2	2	2	2	2.0	
CO4	2	3	3	1	2	2.2	2	2	2	2.0	
CO5	3	2	2	2	3	2.4	3	2	3	2.6	
Overall score for PO						**2.08**	**Overall score for PSO**			**2.04**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Demonstration, Hands-on Training, Guided Practice	Observation, Practical Record, Viva-Voce
Problem-Based Learning, Demonstration, Practice Session	Practical Exercise, Output Verification
Interactive Demonstration, Activity-Based Learning	Lab Performance, Record Evaluation
Hands-on Practice, Peer Learning	Practical Test, Observation
Case Study Method, Hands-on Learning	Worksheet Evaluation, Practical Test

Skill Enhancement Course (SEC) – 1

Semester- I: Common Course for All UG Programmes

Computer Applications

Course Code	2 Hrs. / Week	Semester I	Year I	Credits	L	T	P	Hrs
U26CSS101	COMPUTER APPLICATIONS (Practical)						2	
Nature of the Course	Employability / Skill Enhancement							
Learning objectives	**LO1:** Understand the fundamentals of computers and their role in modern society. **LO2:** Develop practical skills in using office productivity tools for academic and professional purposes. **LO3:** Understand the basics of internet technologies, digital communication, and cybersecurity. **LO4:** Apply spreadsheet tools for data organization, analysis, and visualization. **LO5:** Explore emerging technologies such as Artificial Intelligence, Cloud Computing, and Data Analytics.							

Units	Course Contents	
I	**Computer Fundamentals:** Evolution of Computers - Characteristics and Applications of Computers - Input and Output Devices – Hardware and Software - Memory and Storage Devices - Operating Systems and their Functions – Windows Operating Systems – Window Objects – Utilities: Recycle Bin- Calculator- Note pad- Paint – Tool Bar – Menu Bar.	12
II	**Office Automation Tools:** Introduction to Word Processing – Creating, Editing and Formatting Documents – Ruler Line – Page Layout - Table Manipulation - Mail Merge – Find and Replace – Equation Editor - Word Art - Printing and Sharing Documents.	12
III	**Spreadsheet Applications:** Introduction to Spreadsheets - Workbook and Worksheet Management - Data Entry and Formatting - Formulas and Functions - Charts and Graphs - Sorting and Filtering - Data Analysis Techniques.	12
IV	**Internet and Cyber Security:** Internet Concepts and Services - Web Browsers and Search Engines - E-mail Communication - Cloud Computing Basics - Cyber Threats and Risks - Password Security - Safe Online Practices - Digital Ethics and Cyber Laws.	12
V	**Emerging Technologies:** Artificial Intelligence - Machine Learning Applications - Internet of Things (IoT) - Big Data Analytics - Mobile Computing - Digital Transformation - Applications of Emerging Technologies in Various Domains- Presentation Software - Creating Effective Presentations - Multimedia Features	12
Total Hours		**60**

Question paper Coverage - 100% Practical

Text book	1. *Introduction to Computers, Peter Norton, McGraw-Hill Education, Latest Edition.* 2. *Fundamentals of Computers, V. Rajaraman, PHI Learning, Latest Edition.*
Reference Book	1. *Fundamentals of Information Technology, Alexis Leon & Mathews Leon, Vikas Publishing House, Latest Edition.* 2. *Computer Fundamentals, Anita Goel, Pearson Education, Latest Edition.*

E-Reference	https://www.gcfglobal.org https://www.w3schools.com https://nptel.ac.in			
	COs	**Course Outcomes** **At the end of the course, students will be able to**	**K Level**	**Learning Outcomes (LO1-LO15)**
	CO1	Understand and explain the fundamental concepts of computer systems and information technology.	K1 & K2	LO1
	CO2	Use office productivity tools to create professional documents and presentations.	K3	LO2
	CO3	Apply spreadsheet functions and techniques for data management and analysis.	K3 &K4	LO4
	CO4	Demonstrate safe and responsible use of internet technologies and cybersecurity practices.	K 3	LO3
	CO5	Explain the significance and applications of emerging technologies in various sectors.	K2 & K4	LO5
	CO6	Utilize computer applications effectively to solve academic and workplace problems.	K5 & K6	LO1

(Common Paper for all UG Courses)

LAB LIST

- **Identification of Computer Hardware and Peripheral Devices**
  Identify and document the functions of system-unit components, input devices, output devices, memory units, and storage devices.
- **Windows Operating System and File Management**
  Create folders and subfolders; copy, move, rename, search, sort, compress, restore, and delete files using Windows File Explorer and Recycle Bin.
- **Windows Accessories and Utility Applications**
  Perform basic tasks using Notepad, Calculator, Paint, Snipping Tool, Character Map, and other Windows utilities.
- **Creating and Formatting a Document in MS Word**
  Create a document containing headings, paragraphs, lists, borders, shading, headers, footers, page numbers, symbols, and special characters.
- **Page Layout and Advanced Document Formatting**
  Design a multi-page document using margins, orientation, page size, columns, section breaks, ruler settings, tabs, indentation, line spacing, and paragraph spacing.
- **Table Creation and Manipulation in MS Word**
  Create and format a student mark statement or employee information table using cell merging, splitting, alignment, borders, shading, sorting, and basic calculations.
- **Mail Merge Application**
  Prepare personalized appointment letters, invitations, certificates, or notices for multiple recipients using Mail Merge and an external recipient list.
- **Find and Replace, Equation Editor, and WordArt**
  Create an academic document containing mathematical equations, WordArt, text boxes, shapes, Find and Replace operations, spelling checks, and page formatting.
- **Workbook and Worksheet Management in MS Excel**

Create a workbook with multiple worksheets; rename, insert, delete, move, copy, hide, protect, and format worksheets.

- **Student Mark Analysis Using Formulas and Functions**
  Prepare a student mark sheet and calculate total, average, percentage, grade, result, highest mark, lowest mark, and class rank using formulas and functions.
- **Employee Payroll Preparation Using Spreadsheet Functions**
  Create a payroll worksheet and calculate basic pay, allowances, deductions, gross salary, and net salary using arithmetic, logical, and conditional functions.
- **Sorting, Filtering, and Data Analysis in MS Excel**
  Create a dataset and perform single-level and multi-level sorting, AutoFilter, custom filtering, conditional formatting, subtotal calculation, and data validation.
- **Charts and Graphical Data Presentation**
  Prepare a dataset and generate suitable column, bar, line, pie, and area charts. Add chart titles, legends, labels, axes, and appropriate formatting.
- **Internet, E-mail, Cloud Computing, and Cyber security Practices**
  Perform an effective web search using search operators, create and send an e-mail with attachments and CC/BCC and upload and share a file through cloud storage.
- **Creating an Effective Multimedia Presentation**
  Create a presentation on an emerging technology such as Artificial Intelligence, Machine Learning, IoT, Big Data, Mobile Computing, or Digital Transformation. Include themes, layouts, SmartArt, tables, charts, images, audio/video, animations, transitions, hyperlinks, speaker notes, and slide-show settings.

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Course Code	U26CAT203	Semester II	Year I	Credits	L	T	P	Hrs
Core/ Elective	CORE- 3- Operating Systems			4		Y		5

Nature of the Course	Skill Enhancement
Learning objectives	1. To understand the fundamental concepts of operating systems, process management, and inter-process communication mechanisms. 2. To acquire knowledge of synchronization techniques, mutual exclusion mechanisms, semaphores, and concurrent programming concepts. 3. To analyze deadlock handling techniques and various CPU scheduling algorithms for efficient process management. 4. To evaluate memory organization, memory management strategies, and virtual memory techniques in operating systems. 5. To develop analytical skills in selecting appropriate operating system mechanisms for process synchronization, scheduling, deadlock handling, and memory management.
Units	**Course Contents**
Unit I	**Introduction**: operating system, history (1990s to 2000 and beyond), distributed computing, parallel computation. **Process concepts:** definition of process, process states- Life cycle of a process, process management- process state transitions, process control block(PCB), process operations , suspend and resume, context switching, Interrupts - Interrupt processing, interrupt classes, Inter process communication-signals, message passing.
Unit II	**Asynchronous concurrent processes:** mutual exclusion- critical section, mutual exclusion primitives, implementing mutual exclusion primitives, Peterson's algorithm, software solutions to the mutual Exclusion Problem-, n-thread mutual exclusion- Semaphores – Mutual exclusion with Semaphores, thread synchronization with semaphores, counting semaphores, implementing semaphores. **Concurrent programming:** monitors, message passing.
Unit III	**Deadlock and indefinite postponement:** Resource concepts, four necessary conditions for deadlock, deadlock prevention, deadlock avoidance and Dijkstra's Banker's algorithm, deadlock detection, deadlock recovery.
Unit IV	**Job and processor scheduling:** scheduling levels, scheduling objectives, scheduling criteria, preemptive vs non-preemptive scheduling, interval timer or interrupting clock, priorities, scheduling algorithms- FIFO scheduling, RR scheduling, quantum size, SJF scheduling, SRT scheduling, HRN scheduling, multilevel feedback queues, Fair share scheduling.
Unit V	**Real Memory organization and Management:** Memory organization, Memory management, Memory hierarchy, Memory management strategies, contiguous vs non-contiguous memory allocation, single user contiguous memory allocation, fixed partition multiprogramming, variable partition multiprogramming, Memory swapping **Virtual Memory organization:** virtual memory basic concepts, multilevel storage organization, block mapping, paging basic concepts, segmentation, paging/segmentation systems. **Virtual Memory Management:** Demand Paging, Page replacement strategies.
Question paper Coverage - 100% theory	

Text book	1.H.M. Deitel, Operating Systems, Third Edition, Pearson Education Asia, 2011. 2.Operating System: Internals and Design Principles – William Stallings, *Operating System: Internals and Design Principles*, Seventh Edition, Prentice Hall of India, 2012. **3.** Abraham Silberschatz, Peter B. Galvin, and Greg Gagne, *Operating System Concepts*, Ninth Edition, John Wiley & Sons (Asia) Pte Ltd., 2012.
Reference Book	**1.** William Stallings, Operating System: Internals and Design Principles, Seventh Edition, Prentice-Hall of India, 2012. **2.** A. Silberschatz, and P.B. Galvin., Operating Systems Concepts, Nineth Edition, John Wiley &Sons(ASIA) Pte Ltd.,2012
E-Reference	1. https://www.geeksforgeeks.org/operating-systems 2. https://www.tutorialspoint.com/operating_system/index.html 3. https://www.guru99.com/operating-systems.html 4. https://www.geeksforgeeks.org/operating-systems/process-in-operating-system/ 5. https://www.geeksforgeeks.org/operating-systems/memory-management-in-operating-system/

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of operating systems, process management, process states, inter-process communication, concurrent processes, deadlocks, scheduling techniques, and memory management concepts.	K1 & K2	LO1, LO10, LO11
CO2	Apply process synchronization mechanisms, deadlock handling techniques, CPU scheduling algorithms, and memory management strategies to solve operating system-related problems.	K3	LO4, LO5, LO10
CO3	Analyze process synchronization issues, deadlock conditions, scheduling policies, and memory allocation techniques to determine efficient operating system solutions.	K4	LO3, LO5, LO8
CO4	Evaluate the effectiveness of synchronization mechanisms, deadlock handling methods, scheduling algorithms, and memory management techniques in optimizing system performance.	K5	LO5, LO8, LO11
CO5	Design and recommend suitable operating system strategies for process management, synchronization, scheduling, deadlock handling, and memory management to address real-world computing requirements.	K5 & K6	LO4, LO6, LO13, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes							Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO**	**PO3**	**PO**	**PO5**	**Mean**		**PS**		**PS**		

.												
			2		**4**		**Score**	**O1**	**PS O2**	**O3**	**Mean Score**	
	CO1	3	2	2	1	2	2.0	2	3	2	2.3	
	CO2	3	3	3	1	2	2.4	2	3	2	2.3	
	CO3	2	3	3	2	2	2.4	2	3	3	2.6	
	CO4	2	3	3	2	3	2.6	2	3	3	2.6	
	CO5	3	3	3	2	3	2.8	3	3	3	3.0	
	Overall score for PO						**2.44**	**Overall score for PSO**			**2.56**	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching – Learning Methods	**Assessment Methods**
Experiential Learning – Simulation of process scheduling, deadlock handling, and memory management scenarios.	**Written Mode** – Class tests, assignments, analytical problem-solving exercises, and semester examinations.
Flipped Learning – Pre-class study of operating system concepts through digital resources and videos.	**Research-Based Learning** – Preparation of reports on modern operating systems, synchronization techniques, and memory management methods.
Blended Learning – Integration of classroom lectures with operating system simulators and online learning platforms.	**Case Study Analysis** – Evaluation of real-world operating system issues and scheduling strategies.
Participative Learning – Group discussions, seminars, and collaborative problem-solving activities on operating system algorithms.	**Integrated Mode** – Seminars, presentations, portfolios, quizzes, and SWOC analysis of operating system technologies.
Problem-Based Learning – Solving synchronization, deadlock, scheduling, and memory management problems.	**Continuous Assessment** – Tutorials, assignments, quizzes, viva voce, and classroom participation.

Course Code	**U26CAP204**	**Semester II**	**Year I**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**CORE- 4- Practical : Web Application Development Lab**			3			Y	5

<table>
<tr><td>Nature of the Course</td><td colspan="4">Skill Enhancement</td></tr>
<tr><td>Learning objectives</td><td colspan="4">1. Understand the fundamental concepts of HTML5, JavaScript, XML, CSS, AJAX, jQuery, XHTML forms, and MySQL connectivity used in web application development.
2. Apply JavaScript functions, calculations, loops, string operations, AJAX techniques, XML styling, and database operations in developing interactive web applications.
3. Analyze scripting logic, DOM manipulation, webpage content modification, XML data representation, and client-server interactions in web technologies.
4. Evaluate the correctness, usability, responsiveness, validation methods, and performance of web applications developed using modern web technologies.
5. Design and develop dynamic, responsive, and database-driven web applications integrating HTML5, JavaScript, AJAX, jQuery, XML, XHTML, CSS, and MySQL technologies</td></tr>
<tr><td>S.NO</td><td colspan="4">LAB PROGRAMMES</td></tr>
<tr><td>1</td><td colspan="4">Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.</td></tr>
<tr><td>2</td><td colspan="4">Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.</td></tr>
<tr><td>3</td><td colspan="4">Write a JavaScript code that displays text “TEXT-GROWING” with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays “TEXT-SHRINKING” in BLUE colour. Then the font size decreases to 5pt.</td></tr>
<tr><td>4</td><td colspan="4">Develop and demonstrate an HTML5 file that includes JavaScript script that uses functions for the following problems: a. Parameter: A string b. Output: The position in the string of the left-most vowel c. Parameter: A number d. Output: The number with its digits in the reverse order</td></tr>
<tr><td>5</td><td colspan="4">Design an XML document to store information about a student in an engineering college affiliated with VTU. The information must include USN, Name, and Name of the College, Branch, Year of Joining, and email id. Makeup sample data for 3 students. Create a CSS style sheet and use it to display the document</td></tr>
<tr><td>6</td><td colspan="4">Change the Content of the webpage using AJAX. Perform Different Operations using JQUERY Selectors</td></tr>
<tr><td>7</td><td colspan="4">Create an XHTML form with Name, Address Line 1, Address Line 2, and E-mail text fields. On submitting, store the values in the MySQL table. Retrieve and display the data based on Name</td></tr>
<tr><td colspan="5">Question paper Coverage - 100% Practical</td></tr>
<tr><td>E-Reference</td><td colspan="4">1. https://www.w3schools.com/whatis/default.asp
2. https://www.edureka.co/blog/web-development-tutorial/
3. https://www.tutorialspoint.com/website_development/index.htm</td></tr>
<tr><td rowspan="4">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>K Level</td><td>Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td>Recall and explain the concepts of HTML5, JavaScript, XML, CSS, AJAX, jQuery, XHTML forms, and database connectivity used in web application development.</td><td>K1 & K2</td><td>LO1, LO10, LO11</td></tr>
<tr><td>CO2</td><td>Apply JavaScript, AJAX, jQuery, XML, CSS, XHTML, and MySQL concepts to develop interactive web pages, perform calculations, manipulate webpage content, and process user data.</td><td>K3</td><td>LO4, LO5, LO10</td></tr>
</table>

	CO3	Analyze scripting logic, event handling, DOM manipulation, XML data representation, AJAX communication, and database operations in web applications.	K4	LO3, LO5, LO8
	CO4	Evaluate the correctness, usability, validation, responsiveness, and efficiency of web applications developed using JavaScript, AJAX, jQuery, XML, and MySQL integration.	K5	LO3, LO9, LO13
	CO5	Design and develop dynamic, user-friendly, and database-driven web applications integrating HTML5, JavaScript, XML, AJAX, jQuery, XHTML, CSS, and MySQL technologies.	K5 & K6	LO2, LO6, LO7, LO14, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	2	2.0	3	2	2	2.3	
CO2	3	3	3	2	2	2.6	3	3	2	2.6	
CO3	2	3	3	2	2	2.4	2	3	3	2.6	
CO4	2	2	3	3	3	2.6	2	2	3	2.3	
CO5	3	3	3	3	3	3.0	3	3	3	3.0	
Overall score for PO						**2.52**	**Overall score for PSO**			**2.56**	

Strongly Correlating (S) - 3 Marks
Moderately Correlating (M) - 2 Marks
Weakly Correlating (W) - 1 Mark
No Correlation (N) - 0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture and Demonstration Method for explaining JavaScript, HTML5, XML, AJAX, jQuery, XHTML, CSS, and MySQL concepts with live coding examples.	Continuous Internal Assessment (CIA) through class tests, quizzes, and written examinations.
Hands-on Laboratory Practice for developing calculators, HTML tables, animations, XML documents, AJAX applications, and database-driven forms.	Laboratory Performance Assessment based on coding, debugging, execution, and output generation.
Problem-Based Learning through scripting exercises involving loops, functions, event handling, DOM manipulation, AJAX, and jQuery selectors.	Evaluation of Assignments, programming exercises, and mini web application tasks.
Interactive Learning and Group Discussion sessions for analyzing client-side scripting, XML styling, webpage manipulation, and database integration concepts.	Practical Viva-Voce Examination to assess programming logic, web technologies, and implementation skills.

Course Code	**U26CAA22**	**Semester II**	**Year I**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**ALLIED 2: MULTIMEDIA & ITS APPLICATION LAB**			3			Y	4
Nature of	**Skill Enhancement**							

the Course				
Learning objectives	Understand the fundamental concepts of multimedia, animation, graphic design, image editing, audio effects, and video production techniques. Apply multimedia tools and techniques to create animations, posters, cover pages, visiting cards, collages, and digital artwork. Analyze visual effects, image quality, color combinations, text effects, and multimedia presentation techniques in digital media applications. Evaluate the creativity, usability, resolution quality, and effectiveness of multimedia projects and digital designs. Design and develop innovative multimedia applications, animations, and theme videos using modern multimedia tools and editing techniques.			
S.No	**LAB PROGRAMMES**			
1	Create an animation to represent the growing moon.			
2	Design and make a ball bouncing on steps.			
3	Simulate the movement of a cloud showing the color effects.			
4	Prepare a cover page for the book of your subject area.			
5	Design a visiting card containing at least one graphic and text information.			
6	Make a poster for the forthcoming election and show the difference in resolution and quality			
7	Paint the scenery of a park.			
8	Use effective cropping techniques to design a collage.			
9	Display your name through the given background with at least five text effects and shadow emboss.			
10	Create a one minute theme video with suitable audio effects.			
Question paper Coverage - 100% Practical				
E-Reference	1. https://tutorials4computer.blogspot.com/2015/02/procedure-to-create-animation-to.html 2. https://edex.adobe.com/teaching-resources/flash-animation-create-a-bouncing-ball-in-flash 3. https://appinventor.mit.edu/explore/bouncing-ball			
Course learning outcomes	**On successful completion of the course, the students will be able to**			
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**
	CO1	Recall and explain the fundamental concepts of animation, graphic design, image editing, multimedia effects, text effects, video editing, and digital media tools used in multimedia applications.	K1 & K2	LO1, LO10, LO11
	CO2	Apply animation techniques, graphic tools, image editing methods, text effects, cropping techniques, and multimedia editing tools to create digital media content.	K3	LO4, LO5, LO10
	CO3	Analyze visual design principles, animation effects, image quality, resolution, color effects, and multimedia presentation techniques in digital applications.	K4	LO3, LO5, LO8
	CO4	Evaluate the usability, creativity, presentation quality, and	K5	LO3, LO9, LO13

		effectiveness of multimedia designs, posters, animations, collages, and theme videos.		
	CO5	Design and develop creative multimedia projects including animations, posters, cover pages, visiting cards, collages, text effects, and theme videos using multimedia tools and techniques.	K5 & K6	LO2, LO6, LO7, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
	COs	**PO1**	**PO 2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO 3**	**Mean Score**	
	CO1	2	2	2	2	2	2.0	2	2	2	2.0	
	CO2	3	3	2	2	2	2.4	3	2	2	2.3	
	CO3	2	3	3	2	2	2.4	2	2	3	2.3	
	CO4	2	2	3	3	3	2.6	2	2	3	2.3	
	CO5	3	3	3	3	3	3.0	3	2	3	2.6	
	Overall score for PO						**2.48**	**Overall score for PSO**			**2.3**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture and Demonstration Method for explaining multimedia concepts such as animation, graphic design, image editing, text effects, audio effects, and video editing tools.	Continuous Internal Assessment (CIA) through class tests, quizzes, and multimedia concept evaluations.
Hands-on Laboratory Practice for creating animations, bouncing objects, cloud effects, posters, visiting cards, collages, and theme videos using multimedia tools.	Laboratory Performance Assessment based on creativity, design quality, editing skills, and successful execution of multimedia projects.
Activity-Based Learning through practical exercises involving cropping, image manipulation, text effects, shadow embossing, color effects, and multimedia presentations.	Evaluation of Assignments, practical records, design exercises, and multimedia mini projects.
Interactive Learning and Group Discussion sessions for analyzing visual design principles, multimedia presentation techniques, and resolution quality comparisons.	Practical Viva-Voce Examination to assess understanding of multimedia tools, animation techniques, and digital editing concepts.
Project-Oriented Learning through development of creative multimedia applications including animations, posters, digital artwork, and one-minute theme videos with audio effects.	End Semester Practical Examination and Project Evaluation based on innovation, usability, multimedia integration, and presentation effectiveness.

Course Code	**U26CANM21/ U26CAS202**	**Semester II**	**Year I**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**NAAN MUDHALVAN-1/ SKILL ENHANCEMENT COURSE (SEC-2) – SOFT SKILL: PHOTOSHOP LAB**			2			Y	2
Nature of	**EMPLOYABILITY**							

<table>
<tr><td>the Course</td><td colspan="4"></td></tr>
<tr><td>Learning objectives</td><td colspan="4">1. Understand the fundamental concepts, tools, and techniques of Photoshop for image editing, background correction, cropping, and photo enhancement.
2. Apply Photoshop tools and effects to create and modify digital images, banners, transparent logos, portraits, and text-based graphic designs effectively.
3. Develop creative and professional-quality visual content by analyzing, evaluating, and designing digital graphics using ethical editing practices and modern design principles.</td></tr>
<tr><td>S.No</td><td colspan="4">LAB PROGRAMMES</td></tr>
<tr><td>1</td><td colspan="4">Correcting Backlight using Photoshop tool</td></tr>
<tr><td>2</td><td colspan="4">Brightening Specific Spot</td></tr>
<tr><td>3</td><td colspan="4">Mixed Black and White with colors.</td></tr>
<tr><td>4</td><td colspan="4">Enhancing Portraits- Removing Red Eye.</td></tr>
<tr><td>5</td><td colspan="4">Removing white background on Logo and Turn into Transparent image.</td></tr>
<tr><td>6</td><td colspan="4">Cropping on Object</td></tr>
<tr><td>7</td><td colspan="4">Clean Background.</td></tr>
<tr><td>8</td><td colspan="4">Create a Banner</td></tr>
<tr><td>9</td><td colspan="4">Zooming Effect in Picture.</td></tr>
<tr><td>10</td><td colspan="4">Text Effects.</td></tr>
<tr><td colspan="5">Question paper Coverage - 100% Practical</td></tr>
<tr><td>E-Reference</td><td colspan="4">1. https://saiful.uitm.edu.my/files/Manual%20Photoshop%20-%20CSC253.pdf
2. https://www.csd.uwo.ca/~lreid2/cs1033labs/lab02/lab2.pdf
3. https://dn790002.ca.archive.org/0/items/Photoshop_Lab_Color/Photoshop_Lab_Color.pdf</td></tr>
<tr><td rowspan="6">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>K Level</td><td>Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td>Recall and explain the fundamental concepts, tools, interface elements, image editing techniques, and graphic design principles used in Photoshop for photo manipulation, background editing, cropping, banner creation, and text effects.</td><td>K1 & K2</td><td>LO1, LO5, LO10, LO11</td></tr>
<tr><td>CO2</td><td>Apply Photoshop tools and techniques to perform image correction, spot enhancement, background removal, object cropping, portrait enhancement, transparent logo creation, zoom effects, and text styling for digital graphics.</td><td>K3</td><td>LO1, LO3, LO4, LO5, LO8, LO10</td></tr>
<tr><td>CO3</td><td>Analyze image composition, lighting, color balance, background clarity, and visual effects to identify suitable editing methods and improve the quality of digital images and graphic designs.</td><td>K4</td><td>LO3, LO4, LO5, LO8, LO9, LO10</td></tr>
<tr><td>CO4</td><td>Evaluate the effectiveness of various Photoshop editing techniques, design layouts, color</td><td>K5</td><td>LO3, LO5, LO8, LO9, LO13,</td></tr>
</table>

		combinations, and image enhancement methods in producing professional-quality visual content.		LO14
	CO5	Design and create professional digital graphics such as banners, edited portraits, transparent logos, zoom-effect images, and creative text-based designs using advanced Photoshop tools and ethical digital editing practices.	K5 / K6	LO2, LO3, LO6, LO7, LO10, LO12, LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	3	2	2.40	3	2	2	2.33	
CO2	3	3	3	3	2	2.80	3	3	2	2.67	
CO3	2	3	3	2	2	2.40	3	3	2	2.67	
CO4	2	2	3	3	3	2.60	2	3	3	2.67	
CO5	3	3	3	3	3	3.00	3	3	3	3.00	
Overall score for PO						**2.64**	**Overall score for PSO**			**2.67**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Demonstration, Hands-on Practice, Guided Lab Session	Observation, Practical Record, Viva Voce
Interactive Demonstration, Experimental Learning, Practice Session	Practical Evaluation, Assignment, Oral Test
Activity-Based Learning, Creative Practice, Peer Learning	Design Output Evaluation, Lab Performance, Viva
Demonstration Method, Practical Training, Tutorial Session	Practical Test, Portfolio Assessment, Observation
Problem-Solving Method, Hands-on Training, Guided Editing Practice	Assignment Evaluation, Practical Examination, Viva

Course Code	**U26CAT305**	**Semester III**	**Year II**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**CORE- 5- PYTHON PROGRAMMING**			4		Y		5
Nature of	**Skill Enhancement**							

the Course	
Learning objectives	1. To understand the fundamentals of Python programming, including syntax, data types, operators, expressions, arrays, and input/output operations. 2. To develop programming skills using control structures, looping statements, and jump statements for solving computational problems. 3. To apply functions, strings, recursion, modules, and namespaces in developing structured and reusable Python programs. 4. To analyze and manipulate Python data structures such as lists, tuples, and dictionaries for efficient data processing and problem-solving. 5. To design Python applications using file handling operations for reading, writing, managing, and processing data files effectively.
Units	**Course Contents**
Unit I	**Basics of Python Programming:** History of Python-Features of Python-Literal-Constants-Variables - Identifiers–Keywords-Built- in Data Types-Output Statements – Input Statements-Comments – Indentation- Operators-Expressions-Type conversions. **Python Arrays:** Defining and Processing Arrays – Array methods.
Unit II	**Control Statements:** Selection/Conditional Branching statements: if, if-else, nested if and if - else if - else statements. Iterative Statements: while loop, for loop, else suite in loop and nested loops. **Jump Statements:** break, continue and pass statements**.**
Unit III	**Functions:** Function Definition – Function Call – Variable Scope and its Lifetime-Return Statement. **Function Arguments**: Required Arguments, Keyword Arguments, Default Arguments and Variable Length Arguments- Recursion. **Python Strings:** String operations- Immutable Strings - Built-in String Methods and Functions – String Comparison. **Modules**: import statement- The Python module – dir( ) function – Modules and Namespace – Defining our own modules
Unit IV	Lists: Creating a list -Access values in List-Updating values in Lists- Nested lists -Basic list operations-List Methods. Tuples: Creating, Accessing, Updating and Deleting Elements in a tuple – Nested tuples– Difference between lists and tuples. Dictionaries: Creating, Accessing, Updating and Deleting Elements in a Dictionary – Dictionary Functions and Methods - Difference between Lists and Dictionaries
Unit V	**Python File Handling:** Types of files in Python - Opening and Closing files-Reading and Writing files: write() and write lines() methods- append() method – read() and readlines() methods – with keyword – Splitting words – File methods - File Positions-Renaming and deleting files.
Question paper Coverage - 100% theory	
Text book	**1.** Reema Thareja, "Python Programming using problem solving approach", First Edition, 2017, Oxford University Press. **2.** Dr. R. Nageswara Rao, "Core Python Programming", First Edition, 2017, Dream tech Publishers
Reference Book	1. Vamsi Kurama, "Python Programming: A Modern Approach", Pearson Education. 2. Mark Lutz, "Learning Python", Orielly. 3. Adam Stewarts, "Python Programming", Online. 4. Fabio Nelli, "Python Data Analytics", APress. 5. Kenneth A. Lambert, "Fundamentals of Python – First Programs", CENGAGE Publication.
E-Reference	1. https://www.programiz.com/python-programming 2. https://www.guru99.com/python-tutorials.html 3. https://www.w3schools.com/python/python_intro.asp 4. https://www.geeksforgeeks.org/python-programming-language/ 5. https://en.wikipedia.org/wiki/Python_(programming_language)

Course learning outcomes	**On successful completion of the course, the students will be able to**			
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**
	CO1	Recall and explain the fundamental concepts of Python programming, including syntax, data types, operators, arrays, control statements, functions, strings, modules, lists, tuples, dictionaries, and file handling techniques	K1 & K2	LO1, LO10, LO11
	CO2	Apply Python programming constructs such as conditional statements, loops, functions, arrays, lists, dictionaries, tuples, and file operations to develop solutions for computational and real-world problems	K3	LO4, LO5,LO10
	CO3	Analyze Python program structures, data handling techniques, control mechanisms, and modular programming concepts to determine efficient approaches for problem-solving and data processing.	K4	LO3,LO5,LO8
	CO4	Evaluate the efficiency and suitability of Python programming methods, data structures, functions, modules, and file handling operations in designing reliable and optimized applications	K5	LO5,LO8,LO11
	CO5	Design and develop Python-based applications using appropriate programming constructs, modular approaches, data structures, and file management techniques to address practical computing requirements with logical and ethical considerations.	K5 & K6	LO4,LO6,LO10, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
COs	**PO1**	**PO 2**	**PO3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	0	1	**1.50**	3	0	1	**1.33**	
CO2	3	3	3	1	2	**2.40**	3	1	2	**2.00**	
CO3	2	3	3	0	2	**2.20**	2	2	1	**1.67**	
CO4	2	3	3	1	2	**2.20**	2	3	2	**2.33**	
CO5	3	3	3	3	3	**3.00**	3	2	3	**2.67**	
Overall score for PO						**2.24**	**Overall score for PSO**			**2**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching Methodology	**Learning Methodology**
Experiential Learning – Hands-on programming practice, debugging exercises, file handling activities, and mini coding tasks using Python.	**Written Mode** – Class tests, programming assignments, descriptive examinations, debugging exercises, and problem-solving tasks.
Flipped Learning – Pre-learning through Python tutorials, coding demonstrations, and self-learning materials before classroom discussion.	**Research-Based Learning** – Preparation of reports on Python applications, recent programming trends, and case studies.

Blended Learning – Integration of classroom teaching with digital coding platforms, online compilers, and e-learning resources.	**Practical Assessment** – Program development, execution of Python scripts, output verification, and lab performance evaluation.
Participative Learning – Group discussions, peer coding activities, collaborative debugging, and interactive problem-solving sessions.	**Integrated Mode** – Portfolios, coding demonstrations, seminars, poster presentations, quiz activities, and SWOC analysis on programming tools and technologies.
Problem-Based Learning – Development of logical solutions for real-time computational problems using Python programming constructs.	**Continuous Assessment** – Observation of coding skills, record work, viva voce, and practical-based internal assessments.

Course Code	**U26CAP306**	**Semester III**	**Year II**	**Credits**	**L**	**T**	**P**	**Hrs.**
Core/ Elective	**CORE:6 - PRACTICAL : PYTHON PROGRAMMING LAB**			3			Y	5

Nature of the Course	SKILL ENHANCEMENT			
Learning objectives	1. To understand the basic concepts of Python programming, including variables, constants, operators, input/output statements, and control structures. 2. To develop Python programs using conditional statements, loops, jump statements, functions, and recursion for solving computational problems. 3. To apply arrays, strings, modules, lists, tuples, and dictionaries in developing efficient Python applications. 4. To analyze and evaluate different Python programming techniques, data structures, and file handling operations for effective problem-solving. 5. To design and implement Python-based solutions using modular programming and file processing techniques for real-world applications.			
S.NO	**LAB EXCERISE**			
1	Program using variables, constants, I/O statements in Python.			
2	Program using Operators in Python.			
3	Program using Conditional Statements.			
4	Program using Loops.			
5	Program using Jump Statements.			
6	Program using Functions.			
7	Program using Recursion.			
8	Program using Arrays.			
9	Program using Strings.			
10	Program using Modules.			
11	Program using Lists.			
12	Program using Tuples.			
13	Program using Dictionaries.			
14	Program for File Handling			
Question paper Coverage - 100% Practical				
E-Reference	1. https://www.w3schools.com 2. https://www.programiz.com/python-programming 3. https://www.geeksforgeeks.org/python/python-programming-language-tutorial/ 4. https://www.tutorialspoint.com/python/index.html			
Course learning outcomes	**On successful completion of the course, the students will be able to**			
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**
	CO1	Recall and explain the fundamental concepts of Python programming, including variables, constants, operators, input/output statements, conditional statements, loops, jump statements, functions, recursion, arrays, strings, modules, lists, tuples, dictionaries, and file handling techniques	**K1 & K2**	LO1, LO10, LO11
	CO2	Apply Python programming concepts and constructs to develop programs using operators, control statements, functions, arrays, strings, modules, data structures, and file handling operations for solving computational problems.	**K3**	LO4 ,LO5, LO10
	CO3	Analyze Python program structures, recursion methods, modular programming approaches, and data handling techniques using lists, tuples, dictionaries, and files to determine efficient solutions for problem-solving.	**K4**	LO3 , LO5, LO8

	CO4	Evaluate the efficiency and appropriateness of Python programming methods, control structures, functions, modules, and file handling operations in designing reliable and optimized programs.	**K5**	LO5 , LO8, LO11
	CO5	Design and develop Python applications using suitable programming constructs, modular techniques, data structures, recursion, and file processing methods to address real-world computing problems with ethical and professional considerations.	**K5 & K6**	LO4, LO6,LO10 ,LO13, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
	COs	**PO 1**	**PO 2**	**PO 3**	**PO4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
	CO1	3	2	2	1	1	1.8	3	1	2	2.0	
	CO2	3	3	2	1	2	2.2	3	2	2	2.3	
	CO3	2	3	3	1	2	2.2	3	2	2	2.3	
	CO4	2	3	3	2	2	2.4	2	2	3	2.3	
	CO5	3	3	3	2	3	2.8	3	2	3	2.7	
	Overall score for PO						**2.28**	**Overall score for PSO**			**2.33**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching Methodology	**Learning Methodology**
Experiential Learning – Hands-on practice in developing Python programs using variables, operators, control statements, functions, recursion, arrays, strings, lists, tuples, dictionaries, modules, and file handling techniques.	**Written Mode** – Descriptive tests, programming logic exercises, debugging activities, short-answer tests, and problem-solving assignments based on Python concepts.
Flipped Learning – Students explore Python tutorials, coding demonstrations, and video lectures before participating in classroom coding discussions and activities.	**Practical Assessment** – Writing, compiling, executing, and debugging Python programs related to all 14 programming exercises.
Blended Learning – Combination of classroom teaching with online coding platforms, digital learning resources, Python IDEs, and interactive programming tools.	**Programming Assignments** – Development of Python programs using functions, recursion, modules, arrays, strings, lists, tuples, dictionaries, and file handling.
Participative Learning – Group coding tasks, peer discussions, collaborative debugging, and interactive problem-solving sessions on Python programming concepts.	**Integrated Mode** – Portfolios, coding demonstrations, seminars, poster presentations, viva voce, and SWOC analysis on Python programming applications and tools.

Course Code	**U26CAA33**	**Semester III**	**Year II**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**ALLIED 3: ACCOUNTING AND FINANCIAL MANAGEMENT**			3		Y		4

<table>
<tr><td>Nature of the Course</td><td colspan="4">SKILL ENHANCEMENT</td></tr>
<tr><td>Learning objectives</td><td colspan="4">1. Understand the fundamental concepts of accounting, double entry system, journal, ledger, trial balance, and financial statements used in business organizations.
2. Apply accounting principles and financial management techniques to prepare journal entries, ledger accounts, trial balance, profit and loss account, and balance sheet.
3. Analyze financial statements and accounting ratios to interpret the profitability, liquidity, and solvency position of business enterprises.
4. Evaluate the effectiveness of financial management practices and financial statement analysis techniques for business decision-making and organizational performance.
5. Develop accounting reports and financial analysis statements using accounting principles and analytical reasoning to support managerial and financial decisions</td></tr>
<tr><td>Units</td><td colspan="4">Course Contents</td></tr>
<tr><td>Unit I</td><td colspan="4">ACCOUNTING INFORMATION AND DOUBLE ENRTY: Origin and Growth of accounting: Meaning – objectives & Classifications, uses of accounting information – Limitations. Double Entry System: Definitions – Rules, Merits & Demerits.</td></tr>
<tr><td>Unit II</td><td colspan="4">JOURNAL AND LEDGERS: Journal – Ledger – Posting Journal to Ledger</td></tr>
<tr><td>Unit III</td><td colspan="4">BALACE SHEET: Final accounts of Sole Trading Concerns: Trail Balance – Profit and Loss account – Balance Sheet.</td></tr>
<tr><td>Unit IV</td><td colspan="4">FINACIAL MANAGEMENT: Introduction to Financial Management – Origin – Scope – Types.</td></tr>
<tr><td>Unit V</td><td colspan="4">FINANCIAL STATEMENT ANALYSIS: Financial statement analysis & interpretation: Accounting ratio their significance, Utility & Limitations, Analysis for Inequality, Profitability & Solvency.</td></tr>
<tr><td colspan="5">Question paper Coverage - 100% theory</td></tr>
<tr><td>Text book</td><td colspan="4">1. T.S.Grewal, “Double entry book keeping”, 2019.
2. R.L.Gupta& M.Radhasamy, “Advanced Accountancy”, 2013.
3. M.A.Arulanantham& S.Raman, “Advanced Accountancy” , 2016.
4. S.N.Maheswari, “Advanced Accountancy” – 2019
5. M.C.Shukhala&T.S.Grewal, “Advanced Accountancy”, 2016.</td></tr>
<tr><td>Reference Book</td><td colspan="4">1. R.L.Gupta& Radha Swamy, “Accounting”, Sultan Chand & Sons, 1993.
2. Khan & Jain, “Financial Management”, McGraw Hill Companies, 2007.</td></tr>
<tr><td>E-Reference</td><td colspan="4">1. https://www.educba.com/accounting-vs-financial-management/
2. https://talentedge.com/articles/difference-financial-management-financial-accounting/
3. https://www.investopedia.com/ask/answers/041015/how-does-financial-accounting-differ-managerial-accounting.asp</td></tr>
<tr><td rowspan="4">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>K Level</td><td>Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td>Recall and explain the fundamental concepts, principles, objectives, classifications, accounting systems, journal entries, ledger posting, financial statements, financial management, and financial statement analysis used in accounting and finance.</td><td>K1 & K2</td><td>LO1, LO4, LO5, LO10, LO11</td></tr>
<tr><td>CO2</td><td>Apply accounting principles, double entry system, journalizing, ledger posting, preparation of trial balance, final accounts, and financial statement analysis techniques</td><td>K3</td><td>LO3, LO4, LO6, LO8, LO10</td></tr>
</table>

		to solve practical accounting and financial management problems.		
	CO3	Analyze accounting records, financial statements, accounting ratios, profitability, liquidity, and solvency positions to support effective financial decision-making and interpretation.	K4	LO3, LO5, LO8, LO9, LO11
	CO4	Evaluate the effectiveness of accounting systems, financial management practices, accounting ratios, and financial statement analysis methods in assessing organizational financial performance and business stability.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop appropriate accounting reports, financial statements, and analytical interpretations for business decision-making using accounting principles and financial management techniques ethically and professionally.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	2	2	2.20	3	2	2	2.33	
CO2	3	3	3	2	2	2.60	3	3	2	2.67	
CO3	3	3	3	2	2	2.60	2	3	2	2.33	
CO4	2	3	3	3	3	2.80	2	3	3	2.67	
CO5	3	3	3	3	3	3.00	3	3	3	3.00	
Overall score for PO						**2.64**	**Overall score for PSO**			**2.60**	

Strongly Correlating (S) - 3 Marks
Moderately Correlating (M) - 2 Marks
Weakly Correlating (W) - 1 Mark
No Correlation (N) - 0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Interactive Discussion, Concept Explanation, ICT Enabled Teaching, Self-Learning Activities	Class Test, Quiz, Oral Questions, Assignment, MCQ Test
Problem Solving Sessions, Demonstration Method, Tutorial Practice, Case Study Method, Practical Exercises	Numerical Problems, Unit Test, Record Work, Practical Assessment, Assignment Submission
Analytical Learning, Financial Statement Analysis Activities, Group Discussion, Spreadsheet Practice, Activity-Based Learning	Analytical Exercises, Case Analysis, Internal Examination, Viva Voce, Report Evaluation
Seminar Presentation, Collaborative Learning, Comparative Analysis Method, Discussion Method, Peer Learning	Seminar Assessment, Presentation Evaluation, Model Examination, Observation, Group Activity Assessment
Project-Based Learning, Experiential Learning, Research-Oriented Activities, Business Report Preparation, Independent Learning	Mini Project, Financial Report Preparation, Practical Viva, Portfolio Assessment, End Semester Examination

Course Code	U26CANM32/ U26CAS303	Semester III	Year II	Credits	L	T	P	Hrs
Core/ Elective	NAAN MUDHALVAN-2/ SKILL ENHANCEMENT COURSE (SEC-3): EXCEL FOR DATA ANALYTICS			2			Y	2

	LAB					
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Apply spreadsheet techniques, formulas, functions, sorting, filtering, and data validation methods in MS Excel for efficient data management and analysis. 2. Analyze and visualize data using charts, Pivot Tables, Pivot Charts, lookup functions, and What-If Analysis tools to support decision-making processes. 3. Design and develop Excel-based data analytics solutions and dashboards for solving real-world business and academic problems					
S. No	**Laboratory Programs**					
1	Create a dataset and apply formatting (font, alignment, borders, number formats).					
2	Perform calculations using SUM, AVERAGE, MIN, MAX, COUNT.					
3	Practice relative, absolute, and mixed references in formulas					
4	Use IF, AND, OR functions for decision-making scenarios.					
5	Sort data (ascending/descending) and apply filters for analysis.					
6	Highlight data using rules like greater than, duplicate values, color scales.					
7	Create drop-down lists and restrict data entry using validation rules.					
8	Use LEFT, RIGHT, MID, LEN, TRIM, UPPER, LOWER, CONCAT					
9	Perform calculations using TODAY(), NOW(), DATEDIF(), etc.					
10	Use VLOOKUP, HLOOKUP, and XLOOKUP to retrieve data.					
11	Convert data into tables and use structured references.					
12	Create pivot tables to summarize large datasets					
13	Apply filters, slicers, and calculated fields in pivot tables.					
14	Create bar, line, pie, and column charts.					
15	Design interactive dashboards using charts and slicers.					
Question paper Coverage - 100% Practical						
E-Reference	1. https://www.geeksforgeeks.org/excel/excel-conditional-formatting/ 2. https://www.geeksforgeeks.org/excel/basic-excel-formulas/ 3. https://www.youtube.com/watch?v=91I70Xdjglc 4. https://www.geeksforgeeks.org/excel/how-to-create-a-dashboard-in-excel/ 5. https://medium.com/@Armonia1999/data-analysis-project-excel-dashboard-10c6160f2dbe					
Course learning outcomes	**On successful completion of the course, the students will be able to**					
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**		
	CO1	Recall and explain the fundamental concepts of spreadsheets, worksheet formatting, Excel formulas, functions, charts, Pivot Tables, data validation, and data analysis techniques used in MS Excel.	**K1 & K2**	LO1, LO4, LO5, LO10, LO11		
	CO2	Apply Excel formulas, logical functions, sorting, filtering, lookup functions, and data analysis tools to	**K3**	LO3, LO4, LO6, LO8, LO10		

		organize, process, and analyze datasets effectively.		
	CO3	Analyze datasets using charts, Pivot Tables, Pivot Charts, What-If Analysis tools, and data visualization techniques for meaningful interpretation and decision-making.	**K4**	LO3, LO5, LO8, LO9, LO11
	CO4	Evaluate the efficiency and suitability of Excel-based analytical tools, data cleaning methods, dashboard techniques, and visualization approaches for business and academic applications.	**K5**	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop Excel-based dashboards, reports, and analytical solutions using advanced spreadsheet techniques for solving real-world data analytics problems.	**K5 / K6**	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	3	1	2	2.0	
CO2	3	3	2	1	2	2.2	3	2	2	2.3	
CO3	2	3	3	1	2	2.2	2	2	3	2.3	
CO4	2	3	3	2	2	2.4	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.7	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.32**	

Strongly Correlating (S) - 3 Marks
Moderately Correlating (M) - 2 Marks
Weakly Correlating (W) - 1 Mark
No Correlation (N) - 0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	**Assessment Methods**
Lecture Method, Demonstration, PPT Presentation, Interactive Discussion, Worksheet Practice	Class Test, Quiz, Oral Questions, Assignment
Hands-on Training, Problem Solving Sessions, Excel Formula Practice, Guided Lab Exercises	Practical Exercises, Lab Assessment, Observation Record, Assignment
Case Study Method, Data Analysis Activities, Chart & Pivot Table Demonstration, Collaborative Learning	Practical Test, Mini Project, Dataset Analysis, Viva Voce
Activity-Based Learning, Group Discussion, Real-Time Business Data Analysis, Peer Learning	Seminar, Case Study Evaluation, Presentation, Internal Assessment
Project-Based Learning, Dashboard Development, Experiential Learning, Industry-Oriented Tasks	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	**U26CAT407**	**Semester IV**	**Year II**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**CORE-7: DATABASE MANAGEMENT SYSTEM**			4		5		5

Nature of the Course	SKILL ENHANCEMENT
Learning objectives	1. Understand the fundamental concepts of database systems, data models, database architecture, and business rules. 2. Explain relational database concepts, ER modeling, integrity constraints, and database design methodologies. 3. Apply normalization techniques and SQL commands for creating, manipulating, and retrieving data from databases. 4. Analyze and construct SQL queries using joins, subqueries, functions, and advanced relational operators for data processing. **5.** Develop PL/SQL programs using control structures, cursors, procedures, and exception handling techniques for database applications.
Units	**Course Contents**
Unit I	**Database Concepts:** Database Systems - Data vs. Information - Introducing the database - File system - Problems with file system – Database systems. Data models - Importance - Basic Building Blocks - Business rules - Evolution of Data models - Degrees of Data Abstraction.
Unit II	**Design Concepts:** Relational database model - logical view of data-keys -Integrity rules - relational set operators - data dictionary and the system catalogue - relationships -data redundancy revisited -indexes - codd's rules. Entity relationship model - ER diagram
Unit III	**Normalization of Database Tables:** Database tables and Normalization – The Need for Normalization –The Normalization Process – Higher level Normal Form. Introduction to SQL: Data Definition Commands – Data Manipulation Commands – SELECT Queries – Additional Data Definition Commands – Additional SELECT Query Keywords – Joining Database Tables.
Unit IV	**Advanced SQL:** Relational SET Operators: UNION – UNION ALL – INTERSECTS - MINUS.SQL Join Operators: Cross Join – Natural Join – Join USING Clause – JOIN ON Clause – Outer Join. Sub Queries and Correlated Queries: WHERE – IN – HAVING – ANY and ALL – FROM. SQL Functions: Date and Time Function – Numeric Function – String Function – Conversion Function.
Unit V	**PL/SQL:** A Programming Language: History – Fundamentals – Block Structure – Comments – Data Types – Other Data Types – Variable Declaration – Assignment operation –Arithmetic operators. Control Structures and Embedded SQL: Control Structures – Nested Blocks – SQL in PL/SQL – Data Manipulation – Transaction Control statements. PL/SQL Cursors and Exceptions: Cursors – Implicit Cursors, Explicit Cursors and Attributes – Cursor FOR loops – SELECT…FOR UPDATE – WHERE CURRENT OF clause – Cursor with Parameters – Cursor Variables – Exceptions – Types of Exceptions.
Question paper Coverage - 100% theory	
Text book	1. Coronel, Morris, Rob, "Database Systems, Design, Implementation and Management", Ninth Edition 2. Nilesh Shah, "Database Systems Using Oracle", 2nd edition, Pearson Education India, 2016 3. Abraham Silberschatz, Henry F.Korth and S.Sudarshan,“Database System Concepts”, McGraw Hill International Publication ,VI Edition.
Reference Book	1. Shio Kumar Singh , “Database Systems “,Pearson publications ,II Edition 2. Albert Lulushi, “Developing ORACLE FORMS Applications”, Prentice Hall ,1997

E-Reference	1. www.sqltutorials.com 2. https://www.mysql.com/ 3. https://www.w3schools.in/dbms/

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of database systems, data models, relational database architecture, ER modeling, integrity constraints, normalization, SQL, and PL/SQL programming concepts used in database management systems.	K1 & K2	LO1, LO4, LO5, LO11
CO2	Apply database design principles, normalization techniques, SQL commands, relational operators, joins, and query processing techniques to create and manage relational databases effectively.	K3	LO3, LO4, LO5, LO10
CO3	Analyze database tables and datasets using advanced SQL queries, subqueries, functions, joins, and query optimization techniques for efficient data retrieval and manipulation.	K4	LO3, LO5, LO8, LO9, LO10
CO4	Evaluate database design methodologies, normalization approaches, transaction handling mechanisms, PL/SQL constructs, cursors, and exception handling techniques for database application development.	K5	LO2, LO5, LO7, LO9, LO13
CO5	Design and develop database applications using SQL and PL/SQL programming concepts, embedded SQL, cursors, exception handling, and advanced database management techniques to solve real-world problems.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	2	3	1	2.0	
CO2	3	3	2	1	2	2.2	3	3	2	2.7	
CO3	2	3	3	1	2	2.2	2	3	2	2.3	
CO4	2	3	3	2	2	2.4	2	3	2	2.3	
CO5	3	3	3	2	3	2.8	3	3	3	3.0	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.46**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Interactive Discussion, PPT Presentation, Concept Explanation, Demonstration Method	Class Test, Quiz, Oral Questions, Assignment
Hands-on SQL Practice, Problem Solving Sessions, Demonstration, Laboratory Exercises	Practical Test, SQL Exercises, Lab Assessment, Assignment
Case Study Method, Data Analysis Activities, Query	Dataset Analysis, Practical Examination, Mini Project,

Writing Practice, Collaborative Learning	Viva Voce
Activity-Based Learning, Group Discussion, PL/SQL Programming Practice, Peer Learning	Seminar, Program Evaluation, Internal Assessment, Presentation
Project-Based Learning, Experiential Learning, Database Application Development, Industry-Oriented Tasks	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	U26CAP408	Semester IV	Year II	Credits	L	T	P	Hrs

Core/ Elective	**CORE-8: PRACTICAL- DATABASE MANAGEMENT SYSTEM LAB**	3			Y	5
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Understand the concepts of SQL commands, PL/SQL programming, cursors, triggers, and database application development. 2. Apply SQL and PL/SQL programming techniques to perform database creation, manipulation, and query processing operations effectively. 3. Analyze database problems using queries, cursors, triggers, and data processing techniques for efficient database management. 4. Evaluate the performance and suitability of database programming methods and application development techniques for real-world scenarios. 5. Design and develop database applications such as Library Management System and Student Mark Analysis System using SQL and PL/SQL concepts					
S. No	**Laboratory Programs**					
1	**SQL COMMANDS** 1. DDLCOMMANDS 2. DMLCOMMANDS 3. TCLCOMMANDS					
2	***PL/SQL*** 4. FIBONACCI SERIES 5. FACTORIAL 6. STRING REVERSE 7. SUM OF SERIES 8. TRIGGER					
3	***CURSOR*** 9. STUDENT MARK ANALYSIS USING CURSOR					
4	***APPLICATION*** 10. LIBRARY MANAGEMENTSYSTEM 11. STUDENT MARK ANALYSIS					
Question paper Coverage - 100% Practical						
E-Reference	1.Web resources from NDL Library, E-content from open-source libraries 2. https://www.geeksforgeeks.org/sql/sql-ddl-dql-dml-dcl-tcl-commands/ 3. https://www.geeksforgeeks.org/dsa/program-fibonacci-numbers-plsql/					
Course learning outcomes	**On successful completion of the course, the students will be able to**					
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**		
	CO1	Recall and explain the fundamental concepts of SQL commands, PL/SQL programming constructs, cursors, triggers, and database application development techniques used in database management systems.	K1 & K2	LO1, LO4, LO5, LO11		
	CO2	Apply SQL commands, PL/SQL programs, arithmetic operations, string manipulation techniques, and cursor handling mechanisms to solve database-oriented programming problems effectively.	K3	LO3, LO4, LO5, LO10		
	CO3	Analyze database operations and application requirements using cursors, triggers, queries, and data processing techniques for efficient database management and	K4	LO3, LO5, LO8, LO9, LO10		

		decision-making.		
	CO4	Evaluate the efficiency and suitability of SQL queries, PL/SQL programming methods, cursor operations, and trigger mechanisms in developing real-time database applications.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop database applications such as Library Management System and Student Mark Analysis System using SQL, PL/SQL, cursors, and triggers to solve real-world problems.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

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Programme Outcomes							Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	3	2	1	2.0	
CO2	3	3	2	1	2	2.2	3	2	2	2.3	
CO3	2	3	3	1	2	2.2	2	3	2	2.3	
CO4	2	3	3	2	2	2.4	2	3	2	2.3	
CO5	3	3	3	2	3	2.8	3	3	3	3.0	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.38**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Demonstration, Interactive Discussion, PPT Presentation, SQL Concept Explanation	Quiz, Class Test, Oral Questions, Assignment
Hands-on SQL Practice, PL/SQL Coding Sessions, Problem Solving Method, Guided Laboratory Exercises	Practical Test, Program Execution, Lab Observation Record, Assignment
Case Study Method, Cursor and Trigger Demonstration, Collaborative Learning, Debugging Activities	Practical Examination, Dataset Analysis, Mini Project, Viva Voce
Activity-Based Learning, Group Discussion, Real-Time Application Development, Peer Learning	Seminar, Program Evaluation, Internal Assessment, Presentation
Project-Based Learning, Experiential Learning, Database Application Development, Industry-Oriented Tasks	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	U26CAA44	Semester IV	Year II	Credits	L	T	P	Hrs

Core/ Elective	ALLIED 4: NUMERICAL METHODS	3		Y		4
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Understand the fundamental concepts of numerical methods, error analysis, interpolation, numerical differentiation, integration, and differential equations. 2. Apply numerical techniques such as Bisection Method, Newton Raphson Method, Gauss Elimination, interpolation methods, and numerical integration methods to solve mathematical problems. 3. Analyze algebraic equations, simultaneous equations, interpolation problems, and differential equations using appropriate numerical and iterative methods. 4. Evaluate the accuracy, efficiency, and suitability of various numerical methods for scientific and engineering applications. 5. Design computational solutions for real-world mathematical and engineering problems using numerical approximation and differential equation solving techniques.					
Units	**Course Contents**					
Unit I	Algebraic and transcendental equations: Errors in numerical computations – iteration methods– bisection methods– regular false methods–Newton Rapson method.					
Unit II	Simultaneous equations–back substitutions–gauss elimination method–gaussseidal iteration method–comparison of direct and iterative method.					
Unit III	Interpolation–Newton's Formulae–gauss interpolation formulae Language's Interpolation formula– inverse interpolation.					
Unit IV	Numerical Differentiation: Newtons formulae– Numerical integration–Simpson's Rule–Gaussian Quadrature.					
Unit V	Numerical solution of differential equations: Euler's method -Taylor series method–Runge Kutta methods –Predictor Corrector methods.					
Question paper Coverage - 100% theory						
Text book	**1.** Numerical methods by S.Arumugam and, S. Thangapandi Issac, A.Somasundaram, Scitech publications LINU					
Reference Book	1. Numerical Methods for Scientific and Engineering Computation – New Age International Publishers. 2. Introductory Methods of Numerical Analysis – PHI Learning Pvt. Ltd. 3. Numerical Methods – Tata McGraw-Hill Education. 4. Applied Numerical Methods – Pearson Education. 5. Numerical Mathematical Analysis – Oxford & IBH Publishing. 6. Numerical Methods in Engineering and Science – Khanna Publishers. 7. An Introduction to Numerical Methods – Wiley India.					
E-Reference	1. NPTEL – Numerical Methods and Computation 2. MIT OpenCourseWare – Numerical Methods for Engineers 3. GeeksforGeeks – Numerical Methods Tutorials					
Course learning outcomes	**On successful completion of the course, the students will be able to**					
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**		
	CO1	Recall and explain the fundamental concepts of numerical methods, error analysis, algebraic and transcendental equations, interpolation techniques, numerical differentiation, integration, and differential equations.	K1 & K2	LO1, LO4, LO5, LO11		
	CO2	Apply numerical methods such as Bisection method,	K3	LO3, LO4, LO5,		

		Newton Raphson method, Gauss Elimination, Gauss Seidel iteration, interpolation techniques, and numerical integration methods to solve mathematical problems effectively.		LO10
	CO3	Analyze numerical solutions for algebraic equations, simultaneous equations, interpolation problems, and differential equations using appropriate numerical techniques and iterative methods.	K4	LO3, LO5, LO8, LO9, LO10
	CO4	Evaluate the efficiency, accuracy, and suitability of various numerical methods and iterative techniques for solving scientific and engineering problems.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop computational solutions for real-world mathematical and engineering applications using numerical methods, approximation techniques, and differential equation solvers.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	2	2	2	2.0	
CO2	3	3	2	1	2	2.2	3	2	2	2.3	
CO3	2	3	3	1	2	2.2	2	2	3	2.3	
CO4	2	3	3	2	2	2.4	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.7	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.33**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Interactive Discussion, Concept Explanation, Demonstration Method, PPT Presentation	Class Test, Quiz, Oral Questions, Assignment
Problem Solving Sessions, Numerical Computation Practice, Tutorial Method, Guided Exercises	Numerical Problems, Unit Test, Assignment, Practical Record
Case Study Method, Computational Activities, Collaborative Learning, Analytical Discussions	Problem Analysis Test, Mini Assignment, Internal Assessment, Viva Voce
Activity-Based Learning, Group Discussion, Comparative Analysis of Numerical Methods, Peer Learning	Seminar, Presentation, Analytical Report, Continuous Assessment
Project-Based Learning, Experiential Learning, Computational Modeling, Real-Time Application Solving.	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	**U26CAN401**	**Semester IV**	**Year II**	**Credits**	**L**	**T**	**P**	**Hrs**

Core/ Elective	**NON MAJOR ELECTIVE-1: WEB DESIGNING LAB**	2			Y	2
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Understand the fundamental concepts of HTML, CSS, JavaScript, and web page designing techniques used in web development. 2. Apply web designing tools and client-side scripting techniques to create responsive, interactive, and user-friendly web pages. **3.** Design and develop dynamic websites and mini web applications using HTML, CSS, and JavaScript for real-world applications					
S. No	**Laboratory Programs**					
1	Create a simple web page using basic HTML tags such as headings, paragraphs, lists, images, and hyperlinks.					
2	Design a web page using HTML formatting tags and create ordered, unordered, and definition lists					
3	Create a timetable web page using HTML tables with proper row span and column span features.					
4	Design a student registration form using HTML form controls such as text boxes, radio buttons, check boxes, drop-down lists, and buttons.					
5	Develop a web page using CSS for applying colors, fonts, borders, margins, padding, and background effects					
6	Create a responsive web page layout using CSS positioning, flexbox, and navigation menus.					
7	Design a photo gallery web page using CSS styling and hover effects.					
8	Develop a web page using JavaScript to perform arithmetic operations, form validation, and simple event handling					
9	Create a dynamic web page using JavaScript functions for displaying date, time, pop-up messages, and calculator operations.					
10	Design and develop a mini website consisting of multiple linked web pages using HTML, CSS, and JavaScript.					
Question paper Coverage - 100% Practical						
E-Reference	1. W3Schools – HTML Tutorial 2. W3Schools – CSS Tutorial 3. W3Schools – JavaScript Tutorial 4. MDN Web Docs – HTML Guide 5. MDN Web Docs – CSS Guide 6. MDN Web Docs – JavaScript Guide 7. free Code Camp – Responsive Web Design 8. Tutorials Point – Web Designing Tutorial 9. Geeks for Geeks – Web Development Tutorials 10. NPTEL – Web Technology Course					
Course learning outcomes	**On successful completion of the course, the students will be able to**					
	COs	**Course Outcomes**		**K Level**		**Learning Outcomes (LO1-LO15)**
	CO1	Recall and explain the fundamental concepts of web designing, HTML tags, CSS properties, JavaScript functions, web page structures, forms, tables, and client-side scripting techniques used in web development.		K1 & K2		LO1, LO4, LO5, LO11

	CO2	Apply HTML, CSS, and JavaScript concepts to create structured web pages, forms, tables, navigation menus, responsive layouts, and styled web interfaces effectively.	K3	LO3, LO4, LO5, LO10
	CO3	Analyze web page requirements and implement suitable design elements, validation techniques, layouts, and interactive features for developing user-friendly websites.	K4	LO3, LO5, LO8, LO9, LO10
	CO4	Evaluate the efficiency, usability, responsiveness, and visual appearance of web pages using modern web designing techniques and client-side scripting methods.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop complete mini web applications and dynamic websites using HTML, CSS, and JavaScript for real-world web development solutions.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	3	1	2	2.0	
CO2	3	3	2	2	2	2.4	3	2	2	2.3	
CO3	2	3	3	2	2	2.4	2	2	3	2.3	
CO4	2	3	3	3	2	2.6	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.7	
Overall score for PO						**2.4**	**Overall score for PSO**			**2.33**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Demonstration, Interactive Discussion, PPT Presentation, Web Designing Concept Explanation	Quiz, Class Test, Oral Questions, Assignment
Hands-on HTML & CSS Practice, Guided Laboratory Exercises, Problem Solving Sessions, Demonstration Method	Practical Test, Web Page Design Exercises, Lab Assessment, Assignment
Case Study Method, Responsive Web Design Activities, JavaScript Practice, Collaborative Learning	Practical Examination, Mini Website Development, Viva Voce, Internal Assessment
Activity-Based Learning, Group Discussion, Peer Learning, Website Evaluation and Debugging Activities	Seminar, Presentation, Design Evaluation, Continuous Assessment
Project-Based Learning, Experiential Learning, Dynamic Web Application Development, Industry-Oriented Tasks	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	U26CAT509	Semester V	Year III	Credits	L	T	P	Hrs

<table>
<tr><td>Core/ Elective</td><td colspan="2">CORE- 9: COMPUTER NETWORKS</td><td>4</td><td></td><td>Y</td><td></td><td>6</td></tr>
<tr><td>Nature of the Course</td><td colspan="7">SKILL ENHANCEMENT</td></tr>
<tr><td>Learning objectives</td><td colspan="7">1. Understand the fundamental concepts of computer networks, reference models, transmission media, switching techniques, and communication protocols.
2. Apply networking principles, error detection methods, routing algorithms, IP addressing, and transport layer protocols to solve networking problems effectively.
3. Analyze network communication processes, congestion control techniques, wireless communication methods, and protocol performance in computer networks.
4. Evaluate the efficiency, reliability, and security of network architectures, routing methods, transport services, and cryptographic techniques.
5. Design secure and efficient networking solutions using communication protocols, wireless technologies, routing mechanisms, and network security concepts for real-world applications.</td></tr>
<tr><td>Units</td><td colspan="7">Course Contents</td></tr>
<tr><td>Unit I</td><td colspan="7">Introduction – Network Hardware – Software – Reference Models – OSI and TCP/IP Models – Example Networks: Internet, ATM, Ethernet and Wireless LANs - Physical Layer – Theoretical Basis for Data Communication - Guided Transmission Media</td></tr>
<tr><td>Unit II</td><td colspan="7">Wireless Transmission - Communication Satellites – Telephone System: Structure, Local Loop, Trunks and Multiplexing and Switching. Data Link Layer: Design Issues – Error Detection and Correction.</td></tr>
<tr><td>Unit III</td><td colspan="7">Elementary Data Link Protocols - Sliding Window Protocols – Data Link Layer in the Internet - Medium Access Layer – Channel Allocation Problem – Multiple Access Protocols – Bluetooth</td></tr>
<tr><td>Unit IV</td><td colspan="7">Network Layer - Design Issues - Routing Algorithms - Congestion Control Algorithms – IP Protocol – IP Addresses – Internet Control Protocols.</td></tr>
<tr><td>Unit V</td><td colspan="7">Transport Layer - Services - Connection Management - Addressing, Establishing and Releasing a Connection – Simple Transport Protocol – Internet Transport Protocols (ITP) - Network Security: Cryptography.</td></tr>
<tr><td colspan="8">Question paper Coverage - 100% theory</td></tr>
<tr><td>Text book</td><td colspan="7">1. A. S. Tanenbaum, “Computer Networks”, 4th Edition, Prentice-Hall of India, 2008.</td></tr>
<tr><td>Reference Book</td><td colspan="7">1. B. A. Forouzan, “Data Communications and Networking”, Tata McGraw Hill, 4th Edition, 2017.
2. F. Halsall, “Data Communications, Computer Networks and Open Systems”, Pearson Education, 2008.
3. D. Bertsekas and R. Gallagher, “Data Networks”, 2nd Edition, PHI, 2008
4. Lamarca, “Communication Networks”, Tata McGraw- Hill, 2002</td></tr>
<tr><td>E-Reference</td><td colspan="7">1.https://en.wikipedia.org/wiki/Computer_network
2.https://citationsy.com/styles/computer-networks</td></tr>
<tr><td rowspan="4">Course learning outcomes</td><td colspan="7">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td colspan="3">Course Outcomes</td><td>K Level</td><td colspan="2">Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td colspan="3">Recall and explain the fundamental concepts of computer networks, OSI and TCP/IP reference models, transmission media, wireless communication, switching techniques, and communication protocols used in networking systems.</td><td>K1 & K2</td><td colspan="2">LO1, LO4, LO5, LO11</td></tr>
<tr><td>CO2</td><td colspan="3">Apply networking concepts, error detection techniques,</td><td>K3</td><td colspan="2">LO3, LO4, LO5,</td></tr>
</table>

		data link protocols, medium access protocols, IP addressing, and transport layer services to analyze and manage communication networks effectively.		LO10
	CO3	Analyze routing algorithms, congestion control methods, sliding window protocols, wireless communication mechanisms, and internet protocols for efficient network communication and performance optimization.	K4	LO3, LO5, LO8, LO9, LO10
	CO4	Evaluate the efficiency, reliability, and security of network protocols, routing techniques, transport protocols, cryptographic methods, and communication architectures in real-world networking environments.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop secure and efficient networking solutions using communication protocols, routing techniques, transport services, wireless technologies, and network security mechanisms for modern computer networks.	K5 & K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
	COs	**PO1**	**PO2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
	CO1	3	2	2	1	1	1.8	1	3	2	2.0	
	CO2	3	3	2	1	2	2.2	2	3	2	2.3	
	CO3	2	3	3	1	2	2.2	2	3	2	2.3	
	CO4	2	3	3	2	2	2.4	2	3	2	2.3	
	CO5	3	3	3	2	3	2.8	2	3	3	2.7	
	Overall score for PO						**2.28**	**Overall score for PSO**			**2.33**	

Strongly Correlating (S)	- 3 Marks
Moderately Correlating (M)	- 2 Marks
Weakly Correlating (W)	- 1 Mark
No Correlation (N)	- 0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	**Assessment Methods**
Lecture Method, Interactive Discussion, PPT Presentation, Concept Explanation, Demonstration Method	Class Test, Quiz, Oral Questions, Assignment
Problem Solving Sessions, Network Configuration Practice, Tutorial Method, Guided Exercises	Unit Test, Practical Exercises, Assignment, Lab Assessment
Case Study Method, Protocol Analysis Activities, Collaborative Learning, Analytical Discussions	Problem Analysis Test, Mini Project, Viva Voce, Internal Assessment
Activity-Based Learning, Group Discussion, Network Simulation, Peer Learning	Seminar, Presentation, Analytical Report, Continuous Assessment
Project-Based Learning, Experiential Learning, Network Design Activities, Real-Time Application Solving	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	**U26CAT510**	**Semester V**	**Year III**	**Credits**	**L**	**T**	**P**	**Hrs**

Core/ Elective	**CORE- 10: PROGRAMMING IN JAVA**	4		Y		6
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Understand the fundamental concepts of object-oriented programming, Java syntax, JVM architecture, inheritance, packages, interfaces, and exception handling techniques. 2. Apply Java programming concepts, multithreading, file handling, and stream processing techniques to develop efficient Java applications. 3. Analyze Java programs using object-oriented principles, synchronization methods, event handling mechanisms, and graphical user interface components. 4. Evaluate the efficiency, reliability, and usability of Java applications developed using AWT, Swing, exception handling, and multithreading techniques. 5. Design and develop real-world Java applications with graphical user interfaces using object-oriented concepts, event-driven programming, and file processing techniques.					
Units	**Course Contents**					
Unit I	**Introduction:** Review of Object Oriented concepts – History of Java – Java buzzwords – JVM architecture – Data types - Variables - Scope and life time of variables - arrays - operators – control statements - type conversion and casting - simple java program - constructors - methods - Static block - Static Data – Static Method String and String Buffer Classes.					
Unit II	**Inheritance**: Basic concepts - Types of inheritance - Member access rules - Usage of this and Super key word - Method Overloading - Method overriding - Abstract classes - Dynamic method dispatch - Usage of final keyword. **Packages**: Definition-Access Protection –Importing Packages. **Interfaces**: Definition–Implementation–Extending Interfaces. **Exception Handling**: try – catch - throw - throws – finally – Built-in exceptions - Creating own Exception classes.					
Unit III	**Multithreaded Programming**: Thread Class - Runnable interface –Synchronization–Using synchronized methods– Using synchronized statement- Inter thread Communication –Deadlock. **I/O Streams:** Concepts of streams - Stream classes- Byte and Character stream - Reading console Input and Writing Console output - File Handling.					
Unit IV	**AWT Controls:** The AWT class hierarchy - user interface components- Labels - Button - Text Components - Check Box - Check Box Group - Choice - List Box - Panels – Scroll Pane - Menu - Scroll Bar. Working with Frame class - Colour - Fonts and layout managers. **Event Handling:** Events - Event sources - Event Listeners - Event Delegation Model (EDM) - Handling Mouse and Keyboard Events - Adapter classes - Inner classes					
Unit V	**Swing:** Introduction to Swing - Hierarchy of swing components. Containers - Top level containers - JFrame - JWindow - JDialog - JPanel - JButton – Jtoggle Button – Jcheck Box – Jradio Button - JLabel, JText Field – Jtext Area - JList – Jcombo Box – Jscroll Pane.					
Question paper Coverage - 100% theory						
Text book	1.Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010 2.Gary Cornell, *Core Java 2 Volume I – Fundamentals,* Addison Wesley, 1999					
Reference Book	1.Head First Java, O'Rielly Publications. 2. Y. Daniel Liang, *Introduction to Java Programming,* 7th Edition, Pearson Education India, 2010					
E-Reference	1.https://javabeginnerstutorial.com/core-java-tutorial 2.http://docs.oracle.com/javase/tutorial/ 3.https://www.coursera.org/					
Course	**On successful completion of the course, the students will be able to**					

learning outcomes	COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
	CO1	Recall and explain the fundamental concepts of object-oriented programming, Java syntax, JVM architecture, data types, operators, control statements, classes, methods, arrays, strings, and inheritance concepts used in Java programming.	K1 & K2	LO1, LO4, LO5, LO11
	CO2	Apply Java programming concepts such as constructors, inheritance, packages, interfaces, exception handling, multithreading, and file handling techniques to develop Java applications effectively.	K3	LO3, LO4, LO5, LO10
	CO3	Analyze Java programs using object-oriented principles, synchronization techniques, event handling mechanisms, and stream classes for efficient application development and execution.	K4	LO3, LO5, LO8, LO9, LO10
	CO4	Evaluate the efficiency, reliability, and usability of Java applications using multithreading, exception handling, AWT controls, Swing components, and event-driven programming techniques.	K5	LO2, LO5, LO7, LO9, LO13
	CO5	Design and develop real-world Java applications with graphical user interfaces using AWT and Swing, incorporating object-oriented concepts, event handling, file processing, and multithreading techniques.	K5 / K6	LO6, LO7, LO12, LO14, LO15

Mapping of Cos with Pos & PSOs

Programme Outcomes							Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO2**	**PO 3**	**PO 4**	**PO 5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	1	1	1.8	3	1	2	2.0	
CO2	3	3	2	1	2	2.2	3	2	2	2.3	
CO3	2	3	3	1	2	2.2	3	2	2	2.3	
CO4	2	3	3	2	2	2.4	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.7	
Overall score for PO						**2.28**	**Overall score for PSO**			**2.33**	

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Strongly Correlating (S)	- 3 Marks
Moderately Correlating (M)	- 2 Marks
Weakly Correlating (W)	- 1 Mark
No Correlation (N)	- 0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Interactive Discussion, PPT Presentation, Concept Explanation, Demonstration Method	Class Test, Quiz, Oral Questions, Assignment
Hands-on Java Coding Practice, Guided Laboratory Exercises, Problem Solving Sessions, Tutorial Method	Practical Test, Program Execution, Coding Exercises, Assignment
Case Study Method, Program Analysis Activities, Debugging Sessions, Collaborative Learning	Practical Examination, Mini Project, Viva Voce, Internal Assessment
Activity-Based Learning, GUI Development Practice, Peer Learning, Group Discussion	Seminar, Presentation, Program Evaluation, Continuous Assessment
Project-Based Learning, Experiential Learning, Real-	Project Evaluation, Practical Examination, Report

Time Java Application Development, Industry-Oriented Tasks	Submission, Viva Voce

Course	U26CAP511	Semester	Year III	Credits	L	T	P	Hrs

Code		IV						
Core/ Elective	CORE-11: PRACTICAL- PROGRAMMING IN JAVA LAB			3			Y	5
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Understand the fundamental concepts of Java programming, object-oriented principles, strings, exception handling, multithreading, file handling, and graphical user interface components. 2. Apply Java programming techniques to develop programs using arrays, strings, exception handling, multithreading, file processing, AWT controls, and Swing components. 3. Analyze Java applications using synchronization methods, event handling mechanisms, GUI components, and object-oriented programming concepts for efficient execution. 4. Evaluate the efficiency, reliability, and usability of Java applications developed using exception handling, multithreading, file handling, and event-driven programming techniques. 5. Design and develop real-world Java applications and GUI-based solutions using AWT, Swing, event handling, multithreading, and object-oriented programming concepts.							
S. No	Laboratory Programs							
1	Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer							
2	Write a Java program to multiply two given matrices.							
3	Write a Java program that displays the number of characters, lines and words in a text							
4	Generate random numbers between two given limits using Random class and print messages according to the range of the value generated.							
5	Write a program to do String Manipulation using Character Array and perform the following string operations: a. String length b. Finding a character at a particular position c. Concatenating two strings							
6	Write a program to perform the following string operations using String class: a. String Concatenation b. Search a substring c. To extract substring from given string							
7	Write a program to perform string operations using String Buffer class: a. Length of a string b. Reverse a string c. Delete a substring from the given string							
8	Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.							
9	Write a threading program which uses the same method asynchronously to print the numbers 1to10 using Thread1 and to print 90 to100 using Thread2.							

10	Write a program to demonstrate the use of following exceptions. a. Arithmetic Exception b. Number Format Exception c. Array Index Out of Bound Exception d. Negative Array Size Exception
11	Write a Java program that reads on file name from the user, then displays information about whether the file exists, whether the file is readable, whether the file is writable, the type of file and the length of the file in bytes
12	Write a program to accept a text and change its size and font. Include bold italic options. Use frames and controls.
13	Write a Java program that handles all mouse events and shows the event name at the center of the window when a mouse event is fired. (Use adapter classes).
14	Write a Java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +, -,*, % operations. Add a text field to display the result. Handle any possible exceptions like divide by zero.
15	Write a Java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On selecting a button, an appropriate message with "stop" or "ready" or "go" should appear above the buttons in a selected color. Initially there is no message shown.

Question paper Coverage - 100% Practical

E-Reference

1. https://www.w3schools.com/java/
2. http://java.sun.com
3. http://www.afu.com/javafaq.html

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of Java programming, object-oriented principles, strings, arrays, exception handling, multithreading, file handling, AWT controls, event handling, and Swing components used in Java applications.	K1 & K2	LO1, LO4, LO5, LO11
CO2	Apply Java programming concepts such as matrices, strings, constructors, exception handling, multithreading, file handling, GUI controls, and event handling techniques to develop Java programs effectively.	K3	LO3, LO4, LO5, LO10
CO3	Analyze Java programs using object-oriented principles, synchronization techniques, exception handling mechanisms, file processing methods, and graphical user interface components for efficient application development.	K4	LO3, LO5, LO8, LO9, LO10
CO4	Evaluate the efficiency, usability, reliability, and performance of Java applications developed using multithreading, event-driven programming, AWT controls, Swing components, and exception handling techniques.	K5	LO2, LO5, LO7, LO9, LO13
CO5	Design and develop real-world Java applications and GUI-based solutions using AWT and Swing components,	K5 / K6	LO6, LO7, LO12, LO14, LO15

	multithreading, event handling, file processing, and object-oriented programming concepts.		

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
	COs	**PO1**	**PO 2**	**PO 3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
	CO1	3	2	2	1	1	1.8	3	1	2	2.0	
	CO2	3	3	2	1	2	2.2	3	2	2	2.3	
	CO3	2	3	3	1	2	2.2	3	2	2	2.3	
	CO4	2	3	3	2	2	2.4	2	2	3	2.3	
	CO5	3	3	3	2	3	2.8	3	2	3	2.7	
	Overall score for PO						**2.28**	**Overall score for PSO**			**2.33**	

	Strongly Correlating (S)	-	3 Marks
	Moderately Correlating (M)	-	2 Marks
	Weakly Correlating (W)	-	1 Mark
	No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lecture Method, Demonstration, Interactive Discussion, PPT Presentation, Java Concept Explanation	Quiz, Class Test, Oral Questions, Assignment
Hands-on Java Coding Practice, Guided Laboratory Exercises, Problem Solving Sessions, Tutorial Method	Practical Test, Program Execution, Coding Exercises, Assignment
Case Study Method, Debugging Activities, Program Analysis Sessions, Collaborative Learning	Practical Examination, Mini Project, Viva Voce, Internal Assessment
Activity-Based Learning, GUI Development Practice, Event Handling Activities, Peer Learning	Seminar, Presentation, Program Evaluation, Continuous Assessment
Project-Based Learning, Experiential Learning, Real-Time Java Application Development, Industry-Oriented Tasks	Project Evaluation, Practical Examination, Report Submission, Viva Voce

Course Code	U26CAT512	Semester V	Year III	Credits	L	T	P	Hrs
Core/	CORE 12: SOFTWARE ENGINEERING			3		Y		5

Elective						
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Understand the fundamental concepts, principles, and management issues involved in software engineering and software project planning. 2. To acquire knowledge of software cost estimation techniques, staffing requirements, and software maintenance cost factors. 3. Analyze software requirements specification methods and software design techniques for developing quality software systems. 4. Evaluate software verification, validation, testing, and quality assurance techniques for ensuring software reliability. **5.** Develop the ability to apply software engineering principles, design methodologies, and maintenance practices in the development of efficient software systems.					
Units	**Course Contents**					
Unit I	**Introduction:** Introduction to Software engineering some definitions – some size factors – quality to productivity factors – managerial Issue. Planning a software project: defining the problems developing a solution strategy – planning on organization structure – other planning activities.					
Unit II	**Cost Estimation:** Software cost estimation: Software cost factors – Software cost estimation techniques – staffing – level estimation – estimative software maintenance costs.					
Unit III	**Requirements:** Software requirements, definition: the software requirements specifications – formal specification techniques – language and processors for requirements specification.					
Unit IV	**Design:** Software Design: fundamentals Descartes concepts – Modules and Modularizing criteria -Design techniques – detailed design considerations – real time and distributed system design – test plan – mile – stones walk through and inspection – design guide line					
Unit V	Verification and validation techniques: Quality Assurance – static analysis – symbolic execution – unit testing and debugging system - testing formal verification. Software maintenance: enhancing maintainability during developments managerial aspects of software maintenance – configuration management – sources code metrics – other maintenance tools and techniques.					
Question paper Coverage - 100% theory						
Text book	**1.** Richard E. Fairley - Software Engineering Concepts - McGraw Hill pvt ltd, 2001. **2.** Roger S. Pressman, *Software Engineering: A Practitioner's Approach*, Seventh Edition, McGraw-Hill International Edition, 2010. 3. Ian Sommerville, *Software Engineering*, Ninth Edition, Pearson Education, 2011					
Reference Book	1.Rajib Mall, *Fundamentals of Software Engineering*, Fifth Edition, PHI Learning Pvt. Ltd., 2014. 2. Pankaj Jalote, *An Integrated Approach to Software Engineering*, Third Edition, Springer India, 2008. 3. K.K. Aggarwal and Yogesh Singh, *Software Engineering*, Third Edition, New Age International Publishers, 2008.					
E-Reference	1. https://www.tutorialspoint.com/software_engineering/index.html 2. https://www.tutorialspoint.com/software_engineering/index.html 3. https://www.studytonight.com/software-engineering					
Course learning outcomes	**On successful completion of the course, the students will be able to**					
	COs	**Course Outcomes**	**K Level**	**Learning Outcomes (LO1-LO15)**		
	CO1	Recall and explain the fundamental concepts of software	K1 &	LO1, LO10,		

		engineering, software project planning, cost estimation, software requirements, design principles, verification and validation techniques, and software maintenance practices.	K2	LO11
	CO2	Apply software cost estimation techniques, requirement specification methods, design techniques, and testing strategies in the development and maintenance of software systems.	K3	LO4, LO5, LO10
	CO3	Analyze software requirements, design methodologies, quality assurance techniques, and maintenance strategies to determine appropriate software engineering solutions.	K4	LO3, LO5, LO8
	CO4	Evaluate software project plans, estimation methods, design approaches, testing procedures, and maintenance techniques to ensure software quality and reliability.	K5	LO5, LO8, LO11
	CO5	Design and recommend suitable software engineering strategies, including requirement analysis, software design, quality assurance, and maintenance practices, for developing reliable and maintainable software systems.	K5 & K6	LO4, LO6, LO13, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
COs	**PO 1**	**PO2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	2	2.0	3	2	2	2.3	
CO2	3	3	3	2	2	2.6	3	2	2	2.3	
CO3	2	3	3	2	2	2.4	3	2	2	2.3	
CO4	2	3	3	2	3	2.6	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	3	3	3.0	
Overall score for PO						**2.48**	**Overall score for PSO**			**2.44**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	**Assessment Methods**
Experiential Learning – Case studies on software project planning, cost estimation, software design, and maintenance activities.	**Written Mode** – Class tests, assignments, analytical exercises, and semester examinations.
Flipped Learning – Pre-class learning through digital resources, tutorials, and videos on software engineering concepts.	**Research-Based Learning** – Preparation of reports on software development methodologies, quality assurance, and software maintenance practices.
Blended Learning – Integration of classroom instruction with software engineering tools and online learning resources.	**Case Study Analysis** – Evaluation of real-world software engineering projects and development practices.
Participative Learning – Group discussions, seminars, peer reviews, and collaborative problem-solving on software engineering practices.	**Integrated Mode** – Seminars, poster presentations, portfolios, SWOC analysis, and presentations on software engineering trends.

Course Code	**U26CAE51A**	**Semester V**	**Year III**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/	**ELECTIVE :1A: CLOUD COMPUTING**			3		Y		4

Elective						
Nature of the Course	**Skill Enhancement**					
Learning objectives	1. To understand the fundamental concepts, architecture, models, and characteristics of cloud computing and virtualization technologies. 2. To acquire knowledge of cloud deployment models, service models, virtualization techniques, and cloud infrastructure management. 3. To analyze security issues, threats, privacy concerns, and trust mechanisms in cloud computing environments. 4. To evaluate cloud service platforms, web services, and data security mechanisms used in modern cloud applications. 5. To develop the ability to apply cloud computing technologies and mobile cloud computing concepts in business, education, and real-world applications.					
Units	**Course Contents**					
Unit I	**Introduction:** Cloud Computing – An Overview: Introduction – History of Cloud Computing – Characteristics of Cloud – Cloud Computing Model. Issues and Challenges for Cloud Computing – Advantages and Disadvantages of Cloud computing – Security, Privacy and Trust – Virtualization – Threats to Cloud Computing – Next Generation of Cloud Computing. Cloud Computing Architecture: Introduction – Cloud Architecture – Cloud Computing models – Comparisons of Service models – Deployment Models – Identity as a Service (IDaaS).					
Unit II	**Virtualization :** Virtualization in Cloud: Introduction – Virtualization – Implementation of Virtualization– Virtualization support at the OS level – Middleware Support for Virtualization –Advantages of Virtualization – Application Virtualization – Virtualization Implementations Techniques – Hardware Virtualization – Types of virtualization – Load balancing in Cloud Computing – Logical Cloud Computing Model – Virtualization for Data-Centre.					
Unit III	**Security Issues and Challenges:** Security Issues and Challenges in Cloud Computing: Introduction – Security Challenges in Cloud Computing – Information Security in Cloud Computing – Security, Privacy and Trust. Security Management: Introduction – Security Reference Architecture – Security Issues in Cloud Computing – Classification of Security Issues – Types of Attackers – Security Risks in Cloud Computing – Security Threats against Cloud Computing – Novel Security Approaches.					
Unit IV	**Web Services:** Web Services: Introduction – Amazon Web Services – Microsoft Azure – Google App Engine. Data Security and Privacy: Introduction – Data Security – Privacy					
Unit V	**Applications:** Cloud Computing Applications: Introduction – Business Applications – Finance and Banking Application – Cloud Computing in Education. Mobile Cloud Computing: Introduction – Need of Mobile Cloud Computing – Mobile Computing Architecture – Technologies of MCC – MCC Applications – Issues in MCC – Challenges in Building Applications – Platforms					
Question paper Coverage - 100% theory						
Text book	**1.** Pachghare .V.K. - Cloud Computing - PHI Learning Private Limited, 2016 2.Cloud Computing: Principles and Paradigms – Rajkumar Buyya, James Broberg and Andrzej Goscinski, *Cloud Computing: Principles and Paradigms*, Wiley India Pvt. Ltd., 2011.					
Reference Book	1.Anthony T.Velte, Toby J.Velte& Robert Elsenpeter - Cloud Computing - A Practical Approach, 5th Reprint. New Delhi: Tata McGraw-Hill Education Private Limited, 2011. 2. Barrie Sosinsky - Cloud Computing Bible, Wiley India Private Limited, 2011. 3.Cloud Computing: Concepts, Technology & Architecture – Thomas Erl, Ricardo Puttini and Zaigham Mahmood, *Cloud Computing: Concepts, Technology & Architecture*, Pearson Education, 2013. 4.Mastering Cloud Computing – Rajkumar Buyya, Christian Vecchiola and S. Thamarai					

	Selvi, *Mastering Cloud Computing*, McGraw-Hill Education, 2013. 5.Cloud Security and Privacy – Tim Mather, Subra Kumaraswamy and Shahed Latif, *Cloud Security and Privacy*, O'Reilly Media, 2009.
E-Reference	1. https://www.tutorialspoint.com/cloud_computing/index.html 2. https://www.javatpoint.com/cloud-computing-tutorial 3. https://www.javatpoint.com/cloud-computing-tutorial 4. https://learn.microsoft.com/en-us/azure/

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of cloud computing, cloud architecture, virtualization, cloud service models, security concepts, web services, and mobile cloud computing applications.	K1 & K2	LO1, LO10, LO11
CO2	Apply cloud computing models, virtualization techniques, security mechanisms, and cloud platforms to address computing and business requirements	K3	LO4, LO5, LO10
CO3	Analyze cloud architectures, virtualization approaches, security threats, privacy issues, and cloud service platforms to determine effective cloud-based solutions.	K4	LO3, LO5, LO8
CO4	Evaluate cloud service models, virtualization strategies, security frameworks, and mobile cloud computing technologies for efficient and secure cloud deployment.	K5	LO5, LO8, LO11
CO5	Design and recommend suitable cloud computing solutions using virtualization, security mechanisms, cloud platforms, and mobile cloud technologies for real-world applications.	K5 & K6	LO4, LO6, LO13, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO 3**	**Mean Score**	
CO1	3	2	2	1	2	2.0	2	2	3	2.3	
CO2	3	3	3	1	2	2.4	2	2	3	2.3	
CO3	2	3	3	2	2	2.4	2	2	3	2.3	
CO4	2	3	3	2	3	2.6	2	2	3	2.3	
CO5	3	3	3	2	3	2.8	3	2	3	2.6	
Overall score for PO						**2.44**	**Overall score for PSO**			**2.36**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods

Experiential Learning – Hands-on activities on cloud platforms, virtualization environments, and cloud service deployment.	**Written Mode** – Class tests, assignments, analytical exercises, and semester examinations.
Flipped Learning – Pre-class learning using online cloud tutorials, videos, and documentation resources.	**Research-Based Learning** – Preparation of reports on cloud security, virtualization, and emerging cloud technologies.
Blended Learning – Integration of classroom teaching with cloud platforms, virtual labs, and online resources.	**Case Study Analysis** – Analysis of real-world cloud deployment and security scenarios.
Participative Learning – Group discussions, seminars, collaborative activities, and peer learning on cloud technologies.	**Integrated Mode** – Seminars, poster presentations, portfolios, SWOC analysis, and presentations on cloud applications.
Problem-Based Learning – Solving practical issues related to virtualization, cloud security, and mobile cloud computing.	**Continuous Assessment** – Quizzes, tutorials, viva voce, assignments, and classroom participation.

Course Code	**U26CAE51B**	**Semester V**	**Year III**	**Credits**	**L**	**T**	**P**	**Hrs**
Core/ Elective	**ELECTIVE :CYBER SECURITY**			3		Y		4

Nature of the Course	Skill Enhancement
Learning objectives	1. Understand the fundamentals of cyberspace, cybercrime, information security, cyber ethics, and the role of cybersecurity in protecting individuals, especially women, in digital environments. 2. Apply security practices for email, web browsing, Wi-Fi networks, passwords, online communication, social media platforms, smartphones, and digital transactions to ensure safe online activities. 3. Analyze cyber threats, online risks, social media vulnerabilities, cybercrimes against women, and security challenges associated with mobile devices and online banking systems. 4. Evaluate cybersecurity measures, government initiatives, legal provisions, security policies, and best practices for safeguarding personal information and digital assets. 5. Design and recommend effective cybersecurity strategies and awareness programs to promote safe digital behavior, secure online transactions, and protection against emerging cyber threats.
Units	**Course Contents**
Unit I	Introduction to Cyber Space History of Internet - Cyber Crime - Information Security –data stealing -Computer Ethics and Security Policies -violence against women- cyber security for women's talking - pornography- usage of social media and cyber security for women.
Unit II	Email Security &Wi Fi Security Guidelines to choose web browsers - Securing web browser - Antivirus - Email security - Guidelines for setting up a secure password - Two-steps authentication Password – Manager - Wi-Fi Security – strategies to overcome E-mail threats- techniques of using public Wi-Fi –legal aspects regarding Email.
Unit III	Social Media Security Guidelines for social media security - Tips and best practices for safer Social Networking - Basic Security for Windows - User Account Password - Smartphone Security guidelines: Introduction to mobile phones - Smartphone Security - Android Security - IOS Security.
Unit IV	Cyber Security Initiatives in India - Importance of cyber security- making awareness - Counter Cyber Security Initiatives in India - Cyber Security Exercise - Cyber Security in curriculum - Cyber Security Assurance –case studies- government initiations to prevent cyber-crimes.
Unit V	Online Banking, Credit Card and UPI Security Online Banking Security - Mobile Banking Security - Security of Debit and Credit Card – UPI - Micro ATM, e-wallet and POS Security - Security of Micro ATMs - e-wallet Security Guidelines - Security Guidelines for Point of Sales(POS).
Question paper Coverage - 100% theory	
Text book	1. Supriya Madan and Rajan Gupta, "Security in Cyber Space and its Legal Perspective", 1 st Edition, AGPH Books 2. Nina Godbole and Sunit Belpure, Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives, Wiley. 3. Kevin Beaver, Hacking for Dummies Wiley Publishing, Inc. 4. Stallings and Brown, Computer Security: Principles and Practice, Fourth Edition, Publisher: Pearson, 2018
Reference Book	1. Cyber Security Essentials, James Graham, Richard Howar and Ryan Otson, CRC Press 2. Introduction to Cyber Security: Jeetendra Pande 3. Certified Ethical Hacker STUDY GUIDE Kimberly Graves Sybex
E-Reference	1. https://cybercrime.gov.in/ 2. https://nptel.ac.in/courses/ 3. https://www.microsoft.com/security/ 4. https://source.android.com/security 5. https://owasp.org

	6. https://www.khanacademy.org/computing/computer-science/

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of cyberspace, cybercrime, information security, computer ethics, cyber security policies, social media security, smartphone security, cyber security initiatives, and digital payment security mechanisms.	K1 & K2	LO1, LO5, LO10, LO11
CO2	Apply cyber security practices, password management techniques, email and Wi-Fi security measures, social networking safeguards, smartphone protection methods, and secure online transaction procedures to ensure safe digital activities.	K3	LO1, LO4, LO5, LO10, LO11
CO3	Analyze cyber threats, cybercrimes against individuals and women, email vulnerabilities, social media risks, mobile security challenges, and online financial security issues to identify suitable preventive measures.	K4	LO3, LO4, LO5, LO8, LO10, LO11
CO4	Evaluate the effectiveness of cyber security policies, government initiatives, awareness programs, authentication mechanisms, banking security practices, and digital protection strategies in safeguarding users and information systems.	K5	LO3, LO6, LO8, LO9, LO13, LO15
CO5	Design and recommend comprehensive cyber safety strategies, awareness programs, secure digital practices, and protection frameworks for social media, mobile devices, online banking, UPI transactions, and emerging cyber threats.	K5 / K6	LO2, LO3, LO6

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO3**	**Mean Score**	
CO1	2	2	2	2	2	2.00	1	2	2	1.67	
CO2	2	3	3	2	2	2.40	2	2	3	2.33	
CO3	2	3	3	2	2	2.40	2	2	3	2.33	
CO4	2	3	3	3	3	2.80	2	2	3	2.33	
CO5	2	3	3	3	3	2.80	2	2	3	2.33	
Overall score for PO						**2.48**	**Overall score for PSO**			**2.20**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Understanding cyberspace, cybercrime, ethics, and digital security concepts	Quiz, Assignment, Written Test

Applying cybersecurity practices for email, Wi-Fi, smartphones, and online activities	Practical Tasks, Assignments, Online Tests
Analyzing cyber threats and vulnerabilities	Case Analysis, Seminar, Internal Test
Evaluating security policies, initiatives, and protection mechanisms	Presentation, Viva, Research Report
Designing cyber safety solutions and awareness programs	Project Evaluation, Demonstration, End-Semester Examination

Course Code	U26CAE51C	Semester V	Year III	Credits	L	T	P	Hrs
Core/	ELECTIVE :1C: ARTIFICIAL INTELLIGENCE			4		6		6

Elective						
Nature of the Course	**SKILL ENHANCEMENT**					
Learning objectives	1. Develop a comprehensive understanding of Artificial Intelligence concepts, search strategies, knowledge representation, and intelligent system design. 2. Apply AI techniques and reasoning methods to solve real-world computational problems. 3. Analyze intelligent problem-solving approaches, planning methods, and game-playing strategies using logical and analytical thinking. 4. Evaluate AI models, expert systems, inference mechanisms, and knowledge-based systems for effective decision-making. **5.** Design and implement intelligent solutions using AI techniques, expert systems, and robotic architectures to address practical challenges.					
Units	**Course Contents**					
Unit I	**Definition:** Artificial intelligence meaning- The AI problems – The underlying assumption – What is an AI Techniques? – The level of the model. Problems, problem spaces, and search: Defining the system – problem characteristics – production system characteristics.					
Unit II	**Heuristic search techniques:** Heuristic search techniques: Generate and Test – Hill climbing – Best –first search – Problem reduction – Constraint satisfaction – Means –ends analysis. Knowledge representation issues: Representations and mappings – Approaches to knowledge representation					
Unit III	**Predicate logic:** Using predicate logic: Representing simple facts in logic – Representing instance and ISA relationships – computable functions and predicates resolution – natural deduction. Representing Knowledge using rules: Procedural versus declarative knowledge – Logic programming – Forward versus Backward reasoning – Matching – Control Knowledge.					
Unit IV	Game playing: Overview – The minimax search procedure – Adding alpha – beta cutoffs – Additional refinements – Iterative Deepening – References on specific games. Understanding: What understands? What makes understanding hard? Planning- The blocks world- components of a planning system –Good stack planning-Coral Stack planning-Non linear planning using constraint posting					
Unit V	Expert systems: Representing & using domain knowledge – Expert system shells – Knowledge acquisition. Perception and Action: Real-time search – perception- Action – Robot Architectures.					
Question paper Coverage - 100% theory						
Text book	**1.** Elaine rich, Kevin Knight, Shivashankar B Nair - Artificial Intelligence - Tata McGraw Hill 3rd Edition, 2011					
Reference Book	**1.** Stuart Russell - Artificial Intelligence: A Modern Approach - Pearson 3rd Edition, 2013 2. Deepak Khemani - A First Course in Artificial Intelligence - McGraw Hill 2013 3. Mishra R. B. - Artificial Intelligence - Prentice Hall of India 2010.					
E-Reference	1. https://ocw.mit.edu 2. https://ai.stanford.edu 3. https://ai.stanford.edu 4. https://www.ibm.com/artificial-intelligence					
Course learning	**On successful completion of the course, the students will be able to**					
	COs			**Learning**		

outcomes		Course Outcomes	K Level	Outcomes (LO1-LO15)
	CO1	Recall and explain the fundamental concepts of Artificial Intelligence, AI problem-solving approaches, problem spaces, production systems, search techniques, and knowledge representation methods.	K1 & K2	LO1, LO5, LO10, LO11
	CO2	Apply heuristic search techniques, knowledge representation methods, predicate logic, and reasoning mechanisms to solve AI-based problems.	K3	LO1, LO4, LO5, LO10, LO11
	CO3	Analyze AI problem-solving strategies, search algorithms, logical reasoning approaches, planning methods, and game-playing techniques to identify suitable solutions for complex problems.	K4	LO3, LO4, LO5, LO8, LO10, LO11
	CO4	Evaluate the effectiveness of heuristic search methods, knowledge representation schemes, inference mechanisms, planning systems, and game-playing strategies in intelligent systems.	K5	LO3, LO6, LO8, LO9, LO13, LO15
	CO5	Design and develop intelligent systems using expert systems, knowledge-based systems, planning techniques, perception models, and robotic architectures for real-world applications.	K5 / K6	LO2, LO3, LO6, LO7, LO12, LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO 2**	**PO 3**	**PO4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PS O3**	**Mean Score**	
CO1	3	2	2	1	2	**2.00**	2	1	2	**1.67**	
CO2	3	3	3	1	2	**2.40**	3	1	2	**2.00**	
CO3	3	3	3	2	2	**2.60**	2	2	3	**2.33**	
CO4	2	3	3	2	3	**2.60**	2	2	3	**2.33**	
CO5	3	3	3	2	3	**2.80**	3	2	3	**2.67**	
Overall score for PO						**2.48**	**Overall score for PSO**			**2.20**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Understanding AI concepts, problem spaces, search strategies, and knowledge representation	Quiz, Assignment, Written Test
Applying heuristic search techniques, predicate logic, and reasoning methods	Practical Assignments, Internal Tests
Analyzing AI algorithms, planning methods, and game-playing strategies	Case Analysis, Seminar, Written Examination
Evaluating AI models, inference mechanisms, and planning systems	Presentation, Viva, Analytical Reports
Designing intelligent systems, expert systems, and robotic applications	Project Evaluation, Demonstration, End Semester Examination

Course Code	U26CAT613	Semester VI	Year III	Credits	L	T	P	Hrs
Core/ Elective	CORE 13: MACHINE LEARNING			3		Y		5
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Describe the fundamental concepts, categories, and applications of Machine Learning, including supervised, unsupervised, and reinforcement learning approaches. 2. Apply Machine Learning algorithms such as Linear Regression, Logistic Regression, Decision Trees, k-Nearest Neighbors, and k-Means to solve real-world problems. 3. Perform data pre-processing tasks including data cleaning, feature selection, encoding, binning, handling missing values, and dataset preparation for model building. 4. Analyze and evaluate Machine Learning models using validation techniques, performance metrics, clustering methods, neural networks, ensemble models, and bias-variance considerations. **5.** Develop, optimize, and interpret Machine Learning models by selecting suitable algorithms, tuning hyper-parameters, and assessing model effectiveness on datasets.							
Units	**Course Contents**							
Unit I	Introduction- What is machine learning? - Training and testing data- ML categories- Supervised Learning- Unsupervised Learning- Reinforcement Learning.							
Unit II	The ML toolbox- Data- Infrastructure- Algorithms: linear regression, logistic regression decision trees- k-nearest neighbors- k-means- Visualization.							
Unit III	Data scrubbing- Feature Selection- Row Compression- One-hot Encoding- Binning- Missing Data- Setting up your data- Cross Validation- How Much Data Do I Need? Regression analysis- Introduction- Calculation Example- Logistic Regression- Support Vector Machine.							
Unit IV	Clustering- k-Nearest Neighbors- k-Means Clustering- Setting k- Bias & variance. Artificial neural networks- Decision trees- Building a Decision Tree- Random Forests- Boosting Ensemble modeling							
Unit V	Building a model- Set up the development environment- Import the dataset- Scrub the dataset Split the dataset- Select the algorithm and configure its hyper parameters- Evaluate the results Model optimization.							
Question paper Coverage - 100% theory								
Text book	1. "Introduction to Machine Learning" by Ethem Alpaydin							
Reference Book	1. Oliver Theobald, Machine Learning for absolute beginners, second edition. 2. Jiawei Han and Micheline Kamber, Data Mining Concepts and Techniques, Second edition. 3. E. Alpaydin, Introduction to Machine Learning, 3rd Edition, MIT Press, 2014. 4. C.M. Bishop, Pattern Recognition and Machine Learning, Springer, 2016. 5. T. Hastie, R. Tibshirani and J. Friedman, The Elements of Statistical Learning: Data Mining, Inference and Prediction, Springer, 2nd Edition, 2009.							
E-Reference	1. https://developers.google.com/machine-learning 2. https://www.ibm.com/topics/machine-learning 3. https://www.tensorflow.org/tutorials 4. https://cs229.stanford.edu/main_notes.pdf 5. https://neuralnetworksanddeeplearning.com 6. https://xgboost.readthedocs.io/en/stable/							
Course	**On successful completion of the course, the students will be able to**							

learning outcomes	COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
	CO1	Explain the fundamental concepts, categories, workflow, and applications of Machine Learning, including supervised, unsupervised, and reinforcement learning approaches.	K2	LO1, LO2, LO3
	CO2	Apply Machine Learning algorithms such as Linear Regression, Logistic Regression, Decision Trees, k-Nearest Neighbors, and k-Means to solve data-driven problems.	K3	LO4, LO5, LO6
	CO3	Analyze datasets and perform pre-processing techniques such as data cleaning, feature selection, encoding, binning, handling missing values, and cross-validation.	K4	LO7, LO8, LO9
	CO4	Evaluate Machine Learning models using clustering, neural networks, ensemble methods, bias-variance analysis, and performance assessment metrics.	K5	LO10, LO11, LO12
	CO5	Design, build, optimize, and interpret Machine Learning models by selecting appropriate algorithms, tuning hyper-parameters, and assessing results for real-world applications.	K6	LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

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	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO 1**	**PO2**	**PO3**	**PO 4**	**PO5**	**Mean Score**	**PS O1**	**PS O2**	**PSO 3**	**Mean Score**	
CO1	3	3	2	1	2	2.20	2	1	0	1.00	
CO2	3	3	3	2	2	2.60	3	2	1	2.00	
CO3	2	3	3	2	2	2.40	2	3	2	2.33	
CO4	2	2	3	2	3	2.40	2	2	3	2.33	
CO5	3	3	3	2	3	2.80	3	2	3	2.67	
Overall score for PO						**2.48**	**Overall score for PSO**			**2.07**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lectures, Interactive Discussions, Multimedia Presentations, Concept Mapping	Class Tests, Quizzes, Assignments, Oral Questioning
Demonstrations, Problem-Solving Sessions, Laboratory Exercises, Case Studies	Practical Exercises, Lab Records, Assignments, Continuous Assessment Tests
Data Analysis Activities, Group Discussions, Hands-on Practice, Case Analysis	Problem-Based Assignments, Practical Tests, Mini Projects, Internal Examinations
Model Evaluation Activities, Comparative Analysis, Seminars, Research-Based Learning	Model Evaluation Reports, Presentations, Viva-Voce, Internal Assessment Tests
Project-Based Learning, Design Thinking Activities, Collaborative Learning, Industry-Oriented Tasks	Projects, Project Demonstrations, Comprehensive Viva, End-Semester Examination

Course Code	U26CAT614	Semester VI	Year III	Credits	L	T	P	Hrs
Core/ Elective	CORE- 14: DATA ANALYTICS USING R PROGRAMMING			4		6		6
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Understand the concepts, characteristics, architecture, and applications of Big Data and Big Data Analytics. 2. Apply R programming constructs, data structures, and functions to perform data manipulation and analysis tasks. 3. Analyze datasets using vectors, lists, matrices, data frames, factors, and statistical functions available in R. 4. Evaluate data processing techniques, statistical methods, and visualization approaches for extracting meaningful insights from large datasets. **5.** Design and develop data analytics solutions using R programming, statistical analysis, simulation, and visualization techniques for real-world applications.							
Units	**Course Contents**							
Unit I	**Evolution of Big data** — Best Practices for Big data Analytics — Big data characteristics — Validating — The Promotion of the Value of Big Data — Big Data Use Cases- Characteristics of Big Data Applications — Perception and Quantification of Value -Understanding Big Data Storage — A General Overview of High-Performance Architecture — HDFS — MapReduce and YARN — Map Reduce Programming Model.							
Unit II	**CONTROL STRUCTURES AND VECTORS** -Control structures, functions, scoping rules, dates and times, Introduction to Functions, preview of Some Important R Data Structures, Vectors, Character Strings, Matrices, Lists, Data Frames, Classes Vectors: Generating sequences, Vectors and subscripts, Extracting elements of a vector using subscripts, Working with logical subscripts, Scalars, Vectors, Arrays, and Matrices, Adding and Deleting Vector Elements, Obtaining the Length of a Vector, Matrices and Arrays as Vectors Vector Arithmetic and Logical Operations, Vector Indexing, Common Vector Operations							
Unit III	**LISTS**- Lists: Creating Lists, General List Operations, List Indexing Adding and Deleting List Elements, Getting the Size of a List, Extended Example: Text Concordance Accessing List Components and Values Applying Functions to Lists, Data Frames, Creating Data Frames, Accessing Data Frames, Other Matrix-Like Operations							
Unit IV	**FACTORS AND TABLES** - Factors and Levels, Common Functions Used with Factors, Working with Tables, Matrix/Array-Like Operations on Tables , Extracting a Sub table, Finding the Largest Cells in a Table, Math Functions, Calculating a Probability, Cumulative Sums and Products, Minima and Maxima, Calculus, Functions for Statistical Distributions R PROGRAMMING .							
Unit V	**OBJECT-ORIENTED PROGRAMMING** - S Classes, S Generic Functions, Writing S Classes, Using Inheritance, S Classes, Writing S Classes, Implementing a Generic Function on an S Class, visualization, Simulation, code profiling, Statistical Analysis with R, data manipulation							
Question paper Coverage - 100% theory								
Text book	1.Roger D. Peng," R Programming for Data Science, Learn Publisher, 2012 2.Norman Matloff,"The Art of R Programming- A Tour of Statistical Software Design", 2011, Publisher William Pollock, ISBN-10: 1-59327-384-3 ISBN-13: 978-1-59327-384-2.							
Reference Book	1.Garrett Grolemund, Hadley Wickham,"Hands-On Programming with R: Write Your Own Functions and Simulations" , 1st Edition, 2014. 2.Venables , W.N.,and Ripley,"S programming", Springer, 2000							

E-Reference	1.http://leanpub.com/rprogramming. 2. https://www.simplilearn.com

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	Recall and explain the fundamental concepts of Big Data, Big Data Analytics, Big Data characteristics, Hadoop ecosystem, HDFS, MapReduce, YARN architecture, and R programming data structures.	K1 & K2	LO1, LO5, LO10, LO11
CO2	Apply R programming constructs, vectors, matrices, arrays, lists, data frames, functions, and control structures to perform data processing and analytical tasks.	K3	LO1, LO4, LO5, LO10, LO11
CO3	Analyze datasets using R data structures, statistical functions, factors, tables, and matrix operations to identify patterns and relationships in data.	K4	LO3, LO4, LO5, LO8, LO10, LO11
CO4	Evaluate data analysis techniques, probability distributions, statistical computations, visualization methods, and Big Data processing approaches for decision-making.	K5	LO3, LO6, LO8, LO9, LO13, LO15
CO5	Design and develop Big Data analytics solutions using R programming, object-oriented programming concepts, simulation, data visualization, and statistical modeling techniques.	K5 / K6	LO2, LO3, LO6, LO7, LO12, LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO3**	**Mean Score**	
CO1	2	2	2	1	2	**1.80**	2	1	2	**1.67**	
CO2	3	3	3	1	2	**2.40**	3	1	2	**2.00**	
CO3	3	3	3	2	2	**2.60**	2	2	3	**2.33**	
CO4	2	3	3	2	3	**2.60**	2	2	3	**2.33**	
CO5	3	3	3	2	3	**2.80**	3	2	3	**2.67**	
Overall score for PO						**2.44**	**Overall score for PSO**			**2.20**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	Assessment Methods
Lectures, Interactive Discussions, Multimedia Presentations, Concept Mapping, Demonstrations on Big Data Architecture (HDFS, MapReduce, YARN)	Quizzes, Class Tests, Assignments, Oral Questioning
Hands-on R Programming Sessions, Coding Exercises, Tutorials, Demonstrations on Vectors, Matrices, Arrays, and Functions	Programming Assignments, Practical Exercises, Lab Records, Internal Tests
Case Studies, Data Analysis Activities, Problem-Solving Sessions, Group Discussions on Data Structures and Statistical Operations	Case Analysis Reports, Practical Tests, Assignments, Internal Assessment
Research-Oriented Learning, Statistical Analysis	Analytical Reports, Presentations, Viva-Voce, Model

Exercises, Data Visualization Activities, Comparative Analysis of Big Data Techniques	Examination
Project-Based Learning, Simulation Exercises, Object-Oriented Programming in R, Data Visualization Projects, Collaborative Learning	Mini Projects, Project Demonstrations, Project Reports, End Semester Examination

Course Code	U26CAT614	Semester VI	Year III	Credits	L	T	P	Hrs
Core/ Elective	CORE- 15: PRACTICAL- R PROGRAMMING LAB			4		6		6
Nature of the Course	SKILL ENHANCEMENT							
Learning objectives	1. Understand the fundamental concepts of R programming, including data types, operators, control structures, functions, and data structures used in statistical computing. 2. Apply R programming techniques to solve mathematical, computational, and data processing problems using loops, functions, arrays, vectors, lists, and data frames. 3. Analyze datasets by performing data manipulation, file handling, statistical computations, and pattern identification using R programming tools and techniques. 4. Evaluate and interpret data through statistical analysis, graphical representations, charts, and visualization techniques for effective decision-making. 5. Design and develop R-based solutions for real-world applications involving data analysis, reporting, visualization, and statistical modeling.							
S.NO	LAB PROGRAMS							
1	Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice							
2	Program, to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.							
3	Write a program to find list of even numbers from 1 to n using R-Loops.							
4	Create a function to print squares of numbers in sequence.							
5	Write a program to join columns and rows in a data frame using cbind() and rbind() in R.							
6	Implement different String Manipulation functions in R.							
7	Implement different data structures in R (Vectors, Lists, Data Frames)							
8	Write a program to read a csv file and analyze the data in the file in R.							
9	Create pie chart and bar chart using R.							
10	Create a data set and do statistical analysis on the data using R.							
11	Program to find factorial of the given number using recursive function							
12	Write a R program to count the number of even and odd numbers from array of N numbers.							
Question paper Coverage - 100% theory								
E-Reference	1.https://www.simplilearn.com 2. https://www.r-project.org 3. https://cran.r-project.org 4. https://www.w3schools.com/r							
Course learning outcomes	On successful completion of the course, the students will be able to							
	COs	Course Outcomes		K Level	Learning Outcomes (LO1-LO15)			
	CO1	Recall and explain the fundamental concepts of R programming, data types, operators, control structures, functions, and basic statistical techniques used in data		K1 & K2	LO1, LO5, LO10, LO11			

		analysis.		
	CO2	Apply R programming constructs, loops, conditional statements, functions, string manipulation techniques, and data structures to develop solutions for computational problems.	K3	LO1, LO4, LO5, LO10, LO11
	CO3	Analyze datasets using vectors, lists, arrays, data frames, CSV files, and statistical methods to identify meaningful patterns and relationships.	K4	LO3, LO4, LO5, LO8, LO10, LO11
	CO4	Evaluate data visualization techniques, statistical analysis results, and data processing methods using charts, graphs, and analytical tools in R.	K5	LO3, LO6, LO8, LO9, LO13, LO15
	CO5	Design and develop R-based solutions for real-world data analysis problems using programming techniques, visualization tools, statistical methods, and data management practices.	K5 / K6	LO2, LO3, LO6, LO7, LO12, LO13, LO14, LO15

Mapping of Cos with Pos & PSOs

.

	Programme Outcomes						**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
	COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO3**	**Mean Score**	
	CO1	3	2	2	1	2	**2.00**	3	1	2	**2.00**	
	CO2	3	3	3	1	2	**2.40**	3	1	2	**2.00**	
	CO3	3	3	3	2	2	**2.60**	3	2	3	**2.67**	
	CO4	2	3	3	2	3	**2.60**	2	2	3	**2.33**	
	CO5	3	3	3	2	3	**2.80**	3	2	3	**2.67**	
	Overall score for PO						**2.48**	**Overall score for PSO**			**2.33**	

Strongly Correlating (S)	-	3 Marks
Moderately Correlating (M)	-	2 Marks
Weakly Correlating (W)	-	1 Mark
No Correlation (N)	-	0 Mark

Teaching–Learning & Assessment Framework

Teaching – Learning Methods	**Assessment Methods**
Demonstration of R environment, Interactive Lectures, Guided Practice on Data Types, Operators, Functions, and Statistical Concepts	Quizzes, Oral Questions, Lab Observation, Internal Assessment
Hands-on Programming Exercises, Coding Practice, Tutorials on Loops, Conditional Statements, Functions, and String Manipulation	Programming Assignments, Practical Tests, Lab Records, Internal Tests
Data Analysis Activities, CSV File Handling Exercises, Problem-Based Learning, Case Studies using Data Structures	Dataset Analysis Reports, Practical Examinations, Assignments
Visualization Workshops, Statistical Analysis Exercises, Graph Interpretation Activities, Discussion of Analytical Results	Chart-Based Assignments, Practical Demonstrations, Viva-Voce
Mini Projects, Real-Time Data Analysis Tasks, Collaborative Learning, Project-Based Development using R	Project Evaluation, Project Demonstration, Viva, End Semester Practical Examination

SYLLABUS FOR COMMON COURSES
Semester-1
Part – 1 Tamil

MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL – 624101

DEPARTMENT OF -TAMIL STUDIES
PART – I TAMIL

(All UG Courses and Integrated Courses)

Curriculum Framework, Syllabus, and Regulations

(Syllabus under Choice Based Credit System –CBCS)

(For the candidates to be admitted from the Academic Year 2026-2027 onwards)

SEMESTER–1

பொதுத்தமிழ் -1

இக்கால இலக்கியம் - முதலாமாண்டு (முதல் பருவம்–தாள் 1)

இக்கால இலக்கியம்

Course Code	U26TAL101	Semester I	Year I	credits	L	T	P	Hrs
Part-1 Tamil	இக்கால இலக்கியம் .			3	y		-	6
Nature of the Course	Employability / Skill enhancement / Entrepreneurship							
Learning objectivs	SEMESTER–1 • இக்கால இலக்கியங்களை அறிமுகம் செய்தல், அதன் தோற்றம், வளர்ச்சி, வரலாற்றினை அறியும் திறனைப் பெறுவர். மரபுக்கவிதை,புதுக்கவிதையின் தோற்றம், வளர்ச்சி, வரலாற்றினை அறிதல் . • மரபுக்கவிதை,புதுக்கவிதையின் இலக்கண அமைப்பைப் புரிந்து கொள்வர். சிறுகதையின் தோற்றம்,வளர்ச்சி,வரலாற்றினைத் தெரிந்து கொள்வர். சிறுகதையின் இலக்கியச் சிறப்பினை உணர்வர். • தமிழ்ப் புதினம், நாடக, உரைநடை இலக்கியத்தின் தோற்றம், வளர்ச்சி, வரையரை மற்றும் நாடகக்கலையின் சமூகப் பங்களிப்பைப் புரிந்துகொள்ளுவர். தமிழ்ப் புதினம் ,நாடக, உரைநடையின் இலக்கியச் சிறப்புகள் , வகைகளை நினைவு கூர்தல்.							
Units	Course Contents							

Unit - I	**மரபுக்கவிதையும் புதுக்கவிதையும்** மரபுக்கவிதை, புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **மரபுக்கவிதை** **பாரதியார் கவிதைகள்-** ஞானப் பாடல்கள் (1-25)முழுவதும். **பாரதிதாசன் கவிதைகள்–** தமிழ் (1-10) பாடல்கள். **புதுக்கவிதை** **வைரமுத்து கவிதை** இந்தப் பூக்கள் விற்பனைக்கு அல்ல – ஐந்துபெரிது ஆறுசிறிது. **மு.மேத்தா** தேசப்பிதாவுக்கு ஒரு தெருப் பாடகனின் அஞ்சலி. **சிற்பி பாலசுப்ரமணியம்** ஒரு கிராமத்து நதி–ஓடுஓடு சங்கிலி. **இரா. மீனாட்சி** உதய நகரிலிருந்து – மழையும் நானும். **சல்மா -** நினைவுத்துயர். **அப்துல்ரகுமான்** **ஹைக்கூ -** கண்ணாடி, நிழல், ஊசி. **கண்ணாடி** 1. உடைந்த பிறகுதான் பல முகம் காட்டுகிறது... கண்ணாடி! 2. என்னை அப்படியே ஏற்றுக்கொள்கிறது... என் கண்ணாடி! 3. பொய்யே சொல்வதில்லை... ஆனால், வலது கைக்கு இடது கை காட்டுகிறது! 4. இருட்டில் முகமிழந்து போகிறது... கண்ணாடி!

	நிழல் 1. வெளிச்சத்தில் என்னைத் தொடர்கிறது... இருட்டில் என்னைக் கைவிடுகிறது! 2. எத்தனை முயன்றும் மிதிக்க முடிவதில்லை... என் நிழலை! 3. சுவரில் படர்கிறது... ஆனால் சுவரை மறைப்பதில்லை! 4. நண்பனைப் போல கூடி வருகிறது... இரவு வந்ததும் ஒளிகிறது! **ஊசி** 1. காயங்களைச் தைத்து ஆற்றுகிறது... ஆனால் தன் தலையில் ஒரு துளையோடு! 2. துணியை ஊடுருவிச் செல்கிறது... தையலாகிப் பின் தங்குகிறது நூல் மட்டுமே! 3. கிழியக் கிழியத் தைக்கிறது... தியாகத்தின் கூர்மையான அடையாளம்.
Unit - II	**சிறுகதை**
	சிறுகதையின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **புதுமைப்பித்தன்**- சாப விமோசனம். **ஜெயகாந்தன்** – ஒரு பிடி சோறு. **இளசை சுந்தரம்** – சாதகப் பறவைகள். **சூர்ய காந்தன்** –வேட்கை. **இராஜம் கிருஷ்ணன்** – தனிமை. **ஆர்.சூடாமணி** - அந்நியர்கள். **ஆண்டாள் பிரியதர்ஷினி** – மாத்திரை.

	உமா மகேஷ்வரி – அரளிவனம்
Unit - III	**உரைநடை,நாடக இலக்கியம்**
	உரைநடை, நாடக இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **ஏ.கே.செட்டியார்** – குடகு. **அறிஞர் அண்ணா** - நீதி தேவன் மயக்கம். **பண்டிதமணி மு.கதிரேசன் செட்டியார்**– மண்ணியல் சிறுதேர். **ஜெயந்தி நாகராஜன்**– புராண நாடகங்கள்.
Unit - IV	**புதின இலக்கியம்**
	புதின இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **ஆண்டாள் பிரியதர்ஷினி** - தகனம். **சு.சமுத்திரம்**-வேரில் பழுத்த பலா.
Unit - V	**இலக்கணம்**
	மொழி முதல் எழுத்துக்கள் , மொழி இறுதி எழுத்துக்கள் ,வல்லெழுத்து மிகும், மிகாஇடங்கள், உடம்படுமெய்,ஈரொற்று வரும் இடங்கள், ஒரு,ஓர் வரும் இடங்கள், தான்,தாம் வரும் இடங்கள்.
Question paper Coverage - 100% theory	
Text book	• பாரதியார் கவிதைகள்,பூம்புகார் பதிப்பகம் ,சென்னை,2015. • பாரதிதாசன் கவிதைகள், மணிவாசகர் பதிப்பகம், சென்னை,1998. • இந்தப் பூக்கள் விற்பனைக்கு அல்ல ,வைரமுத்து, திருமகள் பதிப்பகம், சென்னை,2009. • மு.மேத்தா கவிதைகள்,திருமகள் நிலையம், சென்னை, 1974. • ஒரு கிராமத்து நதி ,சிற்பி பாலசுப்ரமணியம்,கோலம் வெளியீடு, பொள்ளாச்சி, 1998. • உதய நகரிலிருந்து, இரா.மீனாட்சி,கபிலன் பதிப்பகம், புதுச்சேரி ,2006. • ஒரு மாலையும் இன்னொரு மாலையும் , சல்மா, காலச்சுவடு பதிப்பகம், நாகர்கோவில், 2000. • அப்துல் ரகுமான் கவிதைகள் தொகுப்பு,அப்துல் ரகுமான்,நேஷனல் பப்ளிஷர்ஸ் , சென்னை,1974. • புதுமைப்பித்தன் சிறுகதைகள், காலச்சுவடு பதிப்பகம், நாகர்கோவில்

	2000. • ஒரு பிடி சோறு, ஜெயகாந்தன், தமிழ்ப்பண்ணை பதிப்பகம், சென்னை,1958. • சாதகப் பறவைகள் , இளசை சுந்தரம், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,2008. • ராஜம் கிருஷ்ணனின் சிறுகதைகள், இராஜம் கிருஷ்ணன், கௌரா பதிப்பகம் சாரதா பதிப்பகம் /, சென்னை, 2016. • வேட்கை, சூர்யகாந்தன் , நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2012. • அந்நியர்கள், ஆர். சூடாமணி, காலச்சுவடு பதிப்பகம், சென்னை ,1980. • மாத்திரை, ஆண்டாள் பிரியதர்ஷினி,உயிர்மை பதிப்பகம், சென்னை 2007. • அரளிவனம், உமா மகேஸ்வரி, காலச்சுவடு பதிப்பகம்,நாகர்கோவில்,2008. • குடகு, ஏ.கே.செட்டியார், நியூ செஞ்சுரி புக் ஹவுஸ்,சென்னை, 2014. • நீதி தேவன் மயக்கம் ,அறிஞர் அண்ணா, பூம்புகார் பதிப்பகம், சென்னை,1947. • மண்ணியல் சிறுதேர், பண்டிதமணி மு. கதிரேசன் செட்டியார், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை ,1957. • புராண நாடகங்கள் , ஜெயந்தி நாகராஜன், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை ,2012. • தகனம் , ஆண்டாள் பிரியதர்ஷினி , நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2022. • வேரில் பழுத்த பலா, சு.சமுத்திரம், அறிவுப் பதிப்பகம், சென்னை, 2022. • தொல்காப்பியம்.ச.வே.சுப்பிரமணியம்,மணிவாசகர்பதிப்பகம், சென்னை,2008.
Reference Book	• புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும், வல்லிக்கண்ணன்,பாவை பப்ளிகேஷன்ஸ், சென்னை, இரண்டாம் பதிப்பு, 2020. • புதுக்கவிதை ஒரு புதுப்பார்வை, பாலா, அகரம் பதிப்பகம்,ஐந்தாம் பதிப்பு,தஞ்சாவூர்,2011. • தமிழ்ச் சிறுகதை வரலாறு, சி.சு.செல்லப்பா, காலச்சுவடு பதிப்பகம், சென்னை,1980. • தமிழ்ச் சிறுகதை – நேற்றும் இன்றும்,ம.திருமலை,(தொகுப்பாசிரியர்), ஐந்திணைப் பதிப்பகம்,சென்னை, 1990.

	• தமிழில் சிறுகதையின் தோற்றமும் வளர்ச்சியும், க.சிவதம்பி,தமிழ்ப் புத்தகாலயம் ,சென்னை1980. • தமிழ்ச் சிறுகதை வரலாறு,எம்.வேதசகாயகுமார்,சித்திரிகா பதிப்பகம், திருவனந்தபுரம் ,1979. • புதிய உரைநடை ,மா.இராமலிங்கம்,தமிழ்ப் புத்தகாலயம்,சென்னை,1980. • நாடகக் கலை, அவ்வை டி.கே.சண்முகம், அவ்வை பதிப்பகம், சென்னை,1972. • புதிய நோக்கில் தமிழ் நாடக வரலாறு, முனைவர் கோ.கருணாகரன், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,1988. • மேலை நோக்கில் தமிழ்க் கவிதை,ப.மருதநாயகம்,உலகத்தமிழாராய்ச்சி நிறுவனம், தரமணிவெளியீடு, சென்னை,மறுப்பதிப்பு,2001. • நாவல் கலையியல், இராபாலசுப்பிரமணியன்.,உலகத் தமிழாராய்ச்சி நிறுவனம், தரமணிவெளியீடு, சென்னை, மறுப்பதிப்பு,2004. • நாவலும் வாசிப்பும் ஒரு வரலாற்றுப் பார்வை, இரா.ஆவேங்கடாசலபதி , காலச்சுவடு பதிப்பகம், நாகர்கோவில், மறு பதிப்பு,2012. • தமிழ் நாவல்கள் ஒரு மதிப்பீடு,ந.வானமாமலை, நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,மறுபதிப்பு, 1970. • தமிழ் நாவல் அடிப்படைகள்,எஸ்.தோத்தாத்ரி, சிவகங்கை அகரம் பதிப்பகம், 1980. • நாடக மேடை நினைவுகள், பம்மல் சம்பந்த முதலியார்,உலகத் தமிழாராய்ச்சி நிறுவனம்,தரமணி வெளியீடு,சென்னை,1988.
E-Reference	• Tamil Heritage Foundation-www.tamilheritage.orghttp://www.tamilheritage.org • Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library • Project Madurai - www.projectmadurai.org. • Chennai Library- www.chennailibrary.com . • Tamil Universal Digital Library- www.ulib.prg . • Tamil E-Books Downloads- tamale books downloads. blogspot.com • Tamil Books on line- books.tamil cube.com • Catalogue of the Tamil books in the Library of British Congress archive.org • Tamil novels on line - books.tamilcube.com

Course learning outcomes	On successful completion of the course, the students will be able to			
	COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
	CO1	இக்கால இலக்கியங்களை அறிதல்.	K1 & K2	LO1
	CO2	இக்கால இலக்கியங்களைப் பயின்று பகுத்து வகை தொகை செய்தல்.	K3	LO4
	CO3	இக்கால இலக்கியங்களில் சிறந்த படைப்புகளைத் திறனாய்தல்	K4	LO5
	CO4	இக்கால இலக்கியங்களைப் பகுத்தாய்ந்து மதிப்பிடல்.	K5	LO11
	CO5	இலக்கிய ஆக்கங்களை ஆய்வு செய்து, தானே புது கவிதை,நாவல்,சிறுகதை,நாடகம் எழுதப் பயிற்சி பெற்றுதல்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos with Pos & PSOs	Programme Outcomes						Programme Specific Outcomes			Mapping Score of Cos with POs & PSOs		
.	COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score	
	CO1	3	2	2	2	2	2.2	2	2	2	2	2.6
	CO2	3	3	2	2	2	2.4	2	2	2	2	
	CO3	3	3	2	3	3	2.8	3	3	3	3	

	CO4	3	3	2	3	3	**2.8**	3	3	3	**3**
	CO5	3	3	3	3	3	**3**	3	3	3	**3**
	Overall score for PO					**2.6**	**Overall score for PSO**		**2.6**		
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark										

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1. சமகால இலக்கியத்தில் சமூகமாற்றங்களின் பிரதிபலிப்பு.
2. தமிழ் நவீன கவிதைகளில் பெண்களின் குரல் மற்றும் சுயஅடையாளம் .
3. சமகால சிறுகதைகளில் நகர வாழ்க்கையின் தாக்கம்.
4. மின்னணு காலத்தில் தமிழ் இலக்கியத்தில் மாற்றங்கள்.
5. சமகால இலக்கியத்தில் சுற்றுச்சூழல் விழிப்புணர்வு.

Seminar Topics

1. சமகால தமிழ் நாவல்களில் மனிதஉறவுகள் மற்றும் மதிப்புகள்.

2. சமூக ஊடகங்கள் மற்றும் இக்கால இலக்கிய வளர்ச்சி.

3. சமகால இலக்கியத்தில் இளைஞர்களின் சிந்தனை மற்றும் எதிர்காலம்.

4. சமகால இலக்கியம் மற்றும் பன்முக கலாச்சாரம்.

5. இலக்கியம் மூலம் சமூகவிழிப்புணர்வு உருவாக்கம்.

SEMESTER– II

பொதுத்தமிழ் -2

இடைக்கால இலக்கியம் - முதலாமாண்டு (இரண்டாம் பருவம்–தாள் 2)

Course Code	U26TAL202	Semester II	Year I	credits	L	T	P	Hrs
Part-1 Tamil	இடைக்கால இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement/Entrepreneurship							
Learning objective	• சைவ,வைணவ சமய இலக்கியங்களையும் இலக்கியங்களின் பக்திக் கோட்பாடுகளையும் அவற்றின் பங்களிப்பையும் உணர்தல். தமிழ் இலக்கிய வளர்ச்சியில் பிற சமய நூல்களின் அடிப்படைக் கருத்துக்களைப் புரிந்துகொண்டு அவற்றின் சமய நல்லொழுக்க கோட்பாடுகளை உணர்தல். • கிறித்தவ மற்றும் இசுலாமிய இலக்கியங்களின் தமிழ் இலக்கியத்தின் பண்பாட்டு ஒற்றுமை உணர்வினை அறியும் திறனை அறிந்து பகுத்தறிவு பங்களிப்பை மதிப்பிடுதல். • சிற்றிலக்கியத்தின் இலக்கிய நயத்தை அறிமுகப்படுத்துதல். சிற்றிலக்கிய வகைகளையும் உத்திகளையும் கொள்கைகளையும் அறிதல்.							

Units	Course Contents
Unit - I	**மூவர் தேவாரம்** பக்தி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். 1.கோளறுபதிகம்(1-11 பாடல்கள்)- இரண்டாம் திருமுறை- திருஞானசம்பந்தர். 2.மாசில்வீணையும்(1-10)- ஐந்தாம்திருமுறை- திருநாவுக்கரசர். 3.திருவெண்ணைநல்லூர் பதிகம்-1-10 பாடல்கள்-ஏழாம்திருமுறை – சுந்தரர்.
Unit - II	**பக்தி இலக்கியம்** 1. சிவபுராணம் முழுவதும் – மாணிக்கவாசகர். 2. பெரியாழ்வார் திருமொழி – திருப்பல்லாண்டு (1 – 12 பாசுரங்கள்) – பெரியாழ்வார். 3. திருப்பாவை முழுவதும் - ஆண்டாள்.
Unit - III	**தனிப்பாடல்கள்** 1. காளமேகப் புலவரின் தனிப்பாடல்கள் – கடவுள் வாழ்த்து மட்டும். 2. தாயுமானவர் தனிப்பாடல்கள் – பராபரக்கண்ணி. 3. காசிம் புலவர் தனிப்பாடல்கள் – திருப்புகழ் (இசுலாமிய பக்திப் பாடல்கள்). 4. இரட்சணிய மனோகரம் – முதல் 10 பாடல்கள் - எச்.ஏ.கிருஷ்ணபிள்ளை.
Unit - IV	**சிற்றிலக்கியம்** **திருக்கயிலாய ஞான உலா** (1-50) கண்ணிகள் **கலிங்கத்துப்பரணி** –களம் பாடியது. **குறவஞ்சி** – திருக்குற்றாலக் குறவஞ்சி – வசந்தவல்லியின் காதல் **பள்ளு** – ஞானப்பள்ளு இலக்கியம் முழுவதும். **தூது** – நெஞ்சுவிடு தூது முழுவதும்.
Unit - V	**சித்தர் இலக்கியம்** 5.1 **வள்ளலார் பாடல்கள்** 1."வாடிய பயிரைக் கண்ட போதெல்லாம் வாடினேன் " 2. "எத்தனையோ பேதமுறாத்தொரு உயிரும் 5.2 **திருமூலரின் திருமந்திரம்** யாக்கை நிலையாமை - முதல் தந்திரம் (143-167) 25 பாடல்கள்.

Question paper Coverage - 100% theory	
Text book	• தேவாரம் (திருமுறை 1–7),சைவ சித்தாந்த நூற்பதிப்புக் கழகம்,சென்னை,1957. • திருவாசகம் (சிவபுராணம் உட்பட)– மாணிக்கவாசகர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1980. • நாலாயிர திவ்ய பிரபந்தம் , ஆழ்வார்கள் (compiled by நாதமுனிகள்), சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1980. • காளமேகப் புலவர், தனிப்பாடல்கள், புலியூர்க் கேசிகன், மங்கை வெளியீடு, சென்னை,2014. • தாயுமானவர், தனிப்பாடல்கள் திரட்டு,கலைஞன் பதிப்பகம்,சென்னை,2001. • காசிம் புலவர் திருப்புகழ்- தனிப்பாடல்கள் , காசிம் புலவர், ஷாஹீல் ஹமீதியா அச்சயாந்திர சாஷைசென்னை, 1953. • இரட்சணிய மனோகரம், எச்.ஏ. கிருஷ்ணபிள்ளை, நாசரேத் பதிப்பகம், நாகர்கோவில், 1890. • திருக்கயிலாய ஞான உலா, சேரமான் பெருமாள் நாயனார்,கௌரா பதிப்பகம், சென்னை,2021. • கலிங்கத்துப்பரணி,புலியூர்க்கேசிகன்,உரை,பாவைபதிப்பகம்,சென்னை,2014. • திருக்குற்றாலக் குறவஞ்சி , திரிகூடராசப்பக் கவிராயர் , சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை,2000. • ஞானப்பள்ளு, பதிப்பாசிரியர்-பேராசிரியர்.ஆ.சதாசிவம், இலங்கை,1968. • நெஞ்சுவிடு தூது , உமாபதி சிவாசாரியார், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை,2000. • திருவருட்பா ,இராமலிங்க அடிகள் (வள்ளலார்), சமரச சுத்த சன்மார்க்க சங்கம், வடலூர்/சென்னை,1999. • திருமந்திரம் , திருமூலர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1999.
Reference Book	• தமிழ்ச் சிற்றிலக்கியங்கள், இரா.சந்திரசேகர்,நாம் தமிழர் பதிப்பகம்,சென்னை, 2012 . • ந.வீ.செயராமன் சிற்றிலக்கியச் செல்வம், மணிவாசகம் பதிப்பகம்,சிதம்பரம். 2010. • மூவர் தேவாரம் சொல்லரசு புலவர்,வீ.சிவஞானம்,விஜயாபதிப்பகம், கோவை,2012. • சிற்றிலக்கியங்களின் தோற்றமும் வளர்ச்சியும்,முத்துச்சண்முகன் மற்றும் நிர்மலா மோகன்,முத்துப் பதிப்பகம்,மதுரை1979. • பக்தி இலக்கிய வரலாறு - முனைவர் த.மேகநாதன் ,காவ்யா பதிப்பகம்,

<table>
<tr><td></td><td>சென்னை. 2017.
• சித்தர் இலக்கியம்- அண்ணாமலைப் பல்கலைக்கழகப் பதிப்பகம், 1988.</td></tr>
<tr><td>E-Reference</td><td>• Tamil Heritage Foundation- www.tamilheritage.orghttp://www.tamilheritage.org
• Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library
• Project Madurai - www.projectmadurai.org.
• Chennai Library- www.chennailibrary.com .
• Tamil Universal Digital Library- www.ulib.prg .
• Tamil E-Books Downloads- tamale books downloads. blogspot.com
• Tamil Books on line- books.tamil cube.com
• Catalogue of the Tamil books in the Library of British Congress archive.org
• Tamil novels on line - books.tamilcube.com</td></tr>
<tr><td>Course learning outcomes</td><td>On successful completion of the course, the students will be able to
<table>
<tr><th>COs</th><th>Course Outcomes</th><th>K Level</th><th>Learning Outcomes (LO1-LO15)</th></tr>
<tr><td>CO1</td><td>இடைக்கால இலக்கியங்களை அறிதல்.</td><td>K1 & K2</td><td>LO1</td></tr>
<tr><td>CO2</td><td>மூவர்தேவாரத்தின் படைப்புகளைத் திறனாய்தல்.</td><td>K3</td><td>LO4</td></tr>
<tr><td>CO3</td><td>இடைக்ககால இலக்கியங்களை பயின்று பகுத்து வகை தொகை செய்தல்.</td><td>K4</td><td>LO5</td></tr>
<tr><td>CO4</td><td>பக்தி இலக்கிய வளர்ச்சியினைப் பகுத்தாய்தல்.</td><td>K5</td><td>LO11</td></tr>
<tr><td>CO5</td><td>பிற சமய இலக்கியங்களை மதிப்பீடு செய்தல்.</td><td>K5 & K6</td><td>LO2 LO15 LO3 LO8 LO9</td></tr>
</table></td></tr>
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Mapping of Cos with Pos & PSOs	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
	COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score	2.6
	CO1	3	2	2	2	2	2.2	2	2	2	2	
	CO2	3	3	2	2	2	2.4	2	2	2	2	
	CO3	3	3	2	3	3	2.8	3	3	3	3	
	CO4	3	3	2	3	3	2.8	3	3	3	3	
	CO5	3	3	3	3	3	3	3	3	3	3	
	Overall score for PO						2.6	Overall score for PSO			2.6	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1. இடைக்கால இலக்கியத்தில் சமூகப் பதிவுகள்.
2. இடைக்கால இலக்கியங்களில் பக்தி உணர்வு.
3. சிற்றிலக்கியங்களின் தோற்றமும் வளர்ச்சியும் .

4. இடைக்கால இலக்கியங்களில் அறக்கருத்துகள்.
5. குறவஞ்சி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
6. உலா இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
7. பரணி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
8. பள்ளு இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
9. தனிப்பாடல்களில் இறைச் செய்திகள்.
10.பக்தி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
11.பக்தி இலக்கியத்தின் இறை உணர்வுகள்.
12. சைவ, வைணவ பக்தி இலக்கியங்களில் ஒப்பாய்வு.
13. சிவபுராணம் கூறும் வாழ்வியல் நெறிகள்.

Seminar Topics

1. இடைக்கால இலக்கியங்களில் தமிழ் மொழி வளர்ச்சி.
2. தமிழ் இலக்கிய வரலாற்றில் சிற்றிலக்கிய வகைகளும்-சிறப்புகளும்.
3. பக்தி இயக்கமும் இடைக்காலத் தமிழ் இலக்கிய வளர்ச்சியும்.
4. மூவர் தேவாரத்தில் சமயச் சிந்தனைகள்.
5. மூவர் தேவாரத்தில் பக்தி.
6. திருப்பாவையில் காணப்படும் பக்தி நெறிகள்.
7. சிவபுராணம் காட்டும் சைவத் தத்துவங்கள் .
8. சித்தர் இலக்கியங்களில் சமூகச் சீர்திருத்தக் கருத்துகள்.
9. வள்ளலார் பாடல் செய்திகள்.
10. திருமூலரின் யாக்கை நிலையாமை கருத்துக்கள்.

SEMESTER– III

பொதுத்தமிழ் -3

காப்பிய இலக்கியம் - இரண்டாமாண்டு (மூன்றாம் பருவம், தாள் - 3)

Course Code	U26TAL303	Semester III	Year II	credits	L	T	P	Hrs
Part-1 Tamil	காப்பிய இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement							
Learning objectives	• காப்பிய இலக்கிய உருவாக்கம்,அதன் வரையறை,வகைகள் ஆகியவற்றை அறிந்து கொள்ளுதல். சிலப்பதிகாரம் பெருங்காப்பிய மரபிற்குள் வருவதை அடையாளம் காண்பதோடு அதனை விளக்கும் திறனைப் பெறுதல். • தமிழ்ப் புராண இலக்கியத்தின் சிறப்பினை உணர்தல்,சைவ சமயக் கருத்துகளை அறியும் திறனைப் பெற்று காப்பிய அறநெறிகளைப் புரிந்துகொள்ளுதல் • மரபான காப்பிய இலக்கியங்களை உள்வாங்கி,பின்னாளில் எழுந்த கிறித்தவ,இசுலாமியக் காப்பியங்களையும் ஒப்பிட்டு அதன் வளர்நிலைகளைப் புரிந்து கொள்ளுதல். புராண,இதிகாச மரபுகளிலிருந்து,புதிய காப்பிய இலக்கிய விதிகளை அறிந்து கொள்ளுதல்.							

Units	Course Contents
Unit - I	இரட்டைக் காப்பியங்கள்
	1.1 **சிலப்பதிகாரம்** 1.மங்கல வாழ்த்துப் பாடல். 2.மனை அறம் படுத்த காதை. 3.அந்திமாலை சிறப்புச் செய் காதை. 4.இந்திர விழா ஊர் எடுத்த காதை. 1.2 **மணிமேகலை** முதல் ஐந்து காதைகள்.
Unit - II	**சமண ,பௌத்த காப்பியங்கள்**
	2.1.சீவகசிந்தாமணி – பூமகள் இலம்பகம், முழுவதும். 2.2 .குண்டலகேசி – யாக்கை நிலையாமை.
Unit - III	**கிறித்துவ, இசுலாமிய காப்பியங்கள்**
	3.1.தேம்பாவணி – முடிசூட்டுப் படலம் – சூசை பெற்ற ஏழு வரங்கள். 3.2. சீறாப்புராணம் – ஓநாய் பேசிய படலம்.
Unit - IV	**கம்பராமாயணம் ,வில்லிபாரதம்**
	4.1.கம்பராமாயணம் – கிட்கிந்தா காண்டம் - வாலிவதைப் படலம் (மட்டும்). 4.2. வில்லிபாரதம் – சபா பருவம் முழுவதும்.
Unit - V	**புராணக் காப்பியங்கள்**
	5.1.பெரியபுராணம் – கண்ணப்பநாயனார் புராணம் முழுவதும் 5.2 .இராவண காவியம் – தாய்மொழிப் படலம்(1-11)பாடல்கள் மட்டும்
Question paper Coverage - 100% theory	
Text book	• சிலப்பதிகாரம்,ஞா.மாணிக்கவாசகன்,உமாபதிப்பகம்,சென்னை,2000. • மணிமேகலை – ந.மு.வேங்கடசாமி நாட்டார்,ராமையா பதிப்பகம்,சென்னை.2000. • சீவகசிந்தாமணி , திருத்தக்கதேவர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 2000. • குண்டலகேசி, சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 2000. • தேம்பாவணி,எம்.ஆர்.அடைக்கலசாமி,வர்த்தமானன் பதிப்பகம், சென்னை,1992. • சீறாப்புராணம் ,நாச்சிகுளத்தார் உரை , த்ரீ எம் பதிப்பகம்,சென்னை,1974.

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கம்பராமாயணம் -அ.ச.ஞானசம்பந்தன்,கம்பன் டிரஸ்ட்,கோவை,2000.
வில்லிபாரதம், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 2000.
பெரியபுராணம், குமரகுருபரன்பிள்ளை(பதி),சிரீகாசிமடம், திருப்பானந்தாள்,1964.
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</td></tr>
<tr><td>Course learningoutcoms</td><td>
On successful completion of the course, the students will be able to
<table>
<tr><th>COs</th><th>Course Outcomes</th><th>K Level</th><th>Learning Outcomes (LO1-LO15)</th></tr>
<tr><td>CO1</td><td>காப்பிய இலக்கியங்களின் தோற்றம்- வளர்ச்சி பற்றி அறிவர்.</td><td>K1 & K2</td><td>LO1</td></tr>
</table>
</td></tr>
</table>

	CO2	காப்பிய இலக்கியங்களைப் பயின்று பகுத்து வகை தொகை செய்வர்.	K3	LO4
	CO3	காப்பிய இலக்கியங்களைப் பயின்று ஒப்பீடு செய்வர்.	K4	LO5
	CO4	பிற காப்பிய இலக்கியங்களைப் பகுத்தாய்ந்து மதிப்பிடுவர்.	K5	LO11
	CO5	காப்பியங்களை ஒப்பிட்டு ஆய்வு மேற்கொண்டு தானே புதிய காப்பிய இலக்கியம் உருவாக்கும் சிந்தனை பெறுவர்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos with Pos & PSOs

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	Programme Outcomes							**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
	COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO3**	**Mean Score**	
	CO 1	3	2	2	2	2	**2.2**	2	2	2	**2**	**2.6**
	CO 2	3	3	2	2	2	**2.4**	2	2	2	**2**	
	CO 3	3	3	2	3	3	**2.8**	3	3	3	**3**	
	CO 4	3	3	2	3	3	**2.8**	3	3	3	**3**	
	CO 5	3	3	3	3	3	**3**	3	3	3	**3**	
	Overall score for PO						**2.6**	**Overall score for PSO**			**2.6**	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning,	**Assessment Types** **Written mode – exam, class test, assignment**

Participative Learning	**Integrated mode – paper presentation / seminar**

Assignment Topics

1. தமிழ்க் காப்பியங்களின் தோற்றமும் வளர்ச்சியும்.
2. தமிழ்க் காப்பியங்களில் சமயச் சிந்தனைகள்.
3. தமிழ்க் காப்பியங்களின் இலக்கிய மரபும் தாக்கமும்.
4. சிலப்பதிகாரம்- அந்திமாலைச் சிறப்புசெய் காதைச் செய்திகள்.
5. சிலப்பதிகாரம்- இந்திர விழா ஊர் எடுத்த காதைச் செய்திகள்.
6. விழாவறை காதை காதைச் செய்திகள்.
7. ஊரலர் உரைத்த காதைச் செய்திகள்.
8. மலர்வனம் புக்க காதைச் செய்திகள்.
9. பளிக்கறைப் புக்க காதைச் செய்திகள்.
10 .மணிமேகலா தெய்வம் தோன்றிய காதைச் செய்திகள்.
11. சீவகசிந்தாமணி பூமகள் இலம்பகச் செய்திகள்.
12 .குண்டலகேசி யாக்கை நிலையாமை செய்திகள்.
13. கம்பராமயணம் வாலிவதைப் படலச் செய்திகள்.
14. வில்லிபாரதம் சபா பருவச் செய்திகள்.
15. கண்ணப்ப நாயனாரின் பக்தி நெறி.
16. இராவண காவியத்தில் இராவணனின் பாத்திரப் படைப்பு.
17. இராவண காவியத்தில் அறநெறிச் சிந்தனைகள்.
18. இராவண காவியத்தின் இலக்கியப் பங்களிப்பு.

Seminar Topics

1. தமிழ்க் காப்பியங்கள் காட்டும் தமிழர் பண்பாடு.
2. மணிமேகலையில் சமயச் சிந்தனைகள்.
3. காப்பியங்களில் நீதி மற்றும் அறநெறி.
4. கம்பராமயணம் வாலிவதைப் படலம் கதைச் செய்திகள்.
5. சீவகசிந்தாமணியில் இல்லறமும் துறவறமும்.
6. சீவகசிந்தாமணியின் காப்பியச் சிறப்புகள்.
7. தேம்பாவணி முடிசூட்டுப் படலத்தின் இலக்கியப் பங்களிப்பு.
8. கண்ணப்ப நாயனாரின் பக்திச் சிறப்பு.
9. இராவண காவியத்தில் வீரரும் தலைமைத்துவமும்.

SEMESTER – IV

பொதுத்தமிழ் -4

பழந்தமிழ் இலக்கியம் - இரண்டாமாண்டு (நான்காம் - பருவம் தாள் - 4)

Course Code	U26TAL404	Semester IV	Year II	credits	L	T	P	Hrs
Part-1 Tamil	பழந்தமிழ் இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement/Entrepreneurship							
Learning objectives	• தமிழின் சங்க இலக்கிய வரலாற்றை அறிதல். சங்க இலக்கிய எட்டுத்தொகை நூல்களில் இடம்பெற்றுள்ள ஐந்திணைசார் செய்யுட்கள் பற்றி அறியும் திறனைப் பெறுதல்.` பத்துப்பாட்டில் முல்லைப்பாட்டின் இலக்கியப் பண்பினைக் கற்றல். • தமிழின் அற இலக்கிய வரலாற்றை அறிதல். அற இலக்கியங்கள் முன்							

	வைக்கும் அறக்கருத்துகள்,அற இலக்கியங்களின் இலக்கிய மதிப்புகள் போன்றவற்றை அறிந்துகொள்ளுதல். • தமிழர்களின் பண்டைய அறவாழ்வுப் பெருமிதங்களை அறிந்து பின்பற்றும் விருப்பத்தைத் தூண்டுதல்.சமுதாய ஒற்றுமை,சமத்துவம்,மனித மாண்பு ஆகியவற்றை வலியுறுத்தல்.சிந்தனைத் திறன் வளர்ச்சி, நல்ல முடிவுகளை எடுக்க உதவும் நெறிமுறைகளை அறியச் செய்தல்.
Units	Course Contents
Unit - I	**சங்க இலக்கியம்**
	1.1. எட்டுத்தொகை, பத்துப்பாட்டு 1.குறிஞ்சித் திணை - ஐங்குறுநூறு-205-கபிலர். 2.முல்லைத் திணை - அகநானூறு-74-மதுரைக் கவுணியன் பூதத்தனார். 3.மருதத் திணை - நற்றிணை-120- மாங்குடி கிழார். 4.நெய்தல் திணை - குறுந்தொகை-345-அண்டர் மகன் குறுவழுதி. 5.பாலைத் திணை - பாலைக்கலி -9-பாலை பாடிய பெருங்கடுங்கோ. **1.2. பத்துப்பாட்டு –**முல்லைப்பாட்டு முழுவதும்.
Unit - II	**புறப்பாடல்கள்**
	புறநானூறு 1. ஔவையார் பாடல்கள்- 91,206,235,392. 2. பாரி மகளிர் -112. 3. பேய்மகள் இளவெயினார் -11. 3. பூதப்பாண்டியன் தேவி பெருங்கோப்பெண்டு – 246. 4. காக்கை பாடினியார் – 278. 5.ஒக்கூர் மாசாத்தியார் – 279. 6.அள்ளூர் நன்முல்லையார் – 306. 7.காவற்பெண்டு -86.
Unit - III	**திருக்குறள் - நாலடியார் – நான்மணிக்கடிகை - இன்னாநாற்பது**
	1. **திருக்குறள் –** அறத்துப்பால்- (அறன் வலியுறுத்தல் – செய்ந்நன்றி அறிதல், நடுவுநிலைமை, ஒழுக்கமுடைமை , அற உடைமை). 2. **நாலடியார், –** பொருட்பால் – (கல்வி – 131- 140) குஞ்சியழகும் முதல் அலகுசால் வரை. 3. **நான்மணிக்கடிகை** (11-20) கன்றாமை முதல் மனைக்குப்பாழ் வரை 4. **இன்னா நாற்பது** (21 – 30) ஈத்தவகையால் முதல் நெடுமரம். வரை

Unit - IV	**இனியவை நாற்பது - திரிகடுகம் – சிறுபஞ்ச மூலம் – ஏலாதி ஆசாரக்கோவை – பழமொழி**
	• **இனியவை நாற்பது** (11-20) அதர் சென்று முதல் சலவரைச் சாரா வரை • **திரிகடுகம்** (11-20) விளியாதான் முதல் ஆசை பிறன்கண் வரை • **சிறுபஞ்ச மூலம்** (11-20) கோறலும் நஞ்சு முதல் பூவாதுகாய்க்கும் வரை • **ஏலாதி** (11-20) அவாஅறுக்கல் முதல் மின் நேர் வரை • **ஆசாரக்கோவை** (11 – 20) உடுத்து அலால் முதல் உண்ணுங்கால் வரை • **பழமொழி** – (11-20) 1. விதிப்பட்ட நூலுணர்ந்து வேற்றுமை யில்லார். 2. கற்றானும் கற்றார்வாய்க் கேட்டானும் இல்லாதார். 3. கல்லாதான் கண்ட கழிநுட்பம் கற்றார்முன் . 4. கல்லாதான் கண்ட கழிநுட்பம் காட்டரிதல். 5. கல்வியா னாய கழிநுட்பம் கல்லார்முன். 6. கல்லா தவரிடைக் கட்டுரையின் மிக்கதோர். 7. கற்றாற்று வாரைக் கறுப்பித்துக் கல்லாதார் . 8. கேட்பாரை நாடிக் கிளக்கப் படும்பொருட்கண். 9. ஒருவ ருரைப்ப உரைத்தால், அதுகொண். 10. துன்னி இருவர் தொடங்கிய மாற்றத்திற்.
Unit - V	**முதுமொழிக் காஞ்சி - களவழி நாற்பது**
	5. 1.**முதுமொழிக் காஞ்சி** -(6-10) இல்லைப் பத்து முதல் தண்டாப் பத்து வரை. 5. 2. களவழி நாற்பது முழுவதும்.
Question paper Coverage - 100% theory	
Text book	• சங்க இலக்கியம் மூலமும் உரையும்- ச.வே. சுப்பிரமணியன்,மணிவாசகர் பதிப்பகம்,சென்னை,2014. • பத்துபாட்டு மூலமும் உரையும்,ச.வே. சுப்பிரமணியன்,மணிவாசகர் பதிப்பகம்,சென்னை,2014 • பதினெண்கீழ்க்கணக்கு நூல்கள், அ.மாணிக்கம், வர்த்தமானன் பதிப்பகம், சென்னை,2007.
Reference Book	• தமிழ் இலக்கிய வரலாறு, மு.வரதராசன்,சாகித்ய அகாதெமி பப்ளிகேஷன், சென்னை.1972. • தமிழ்ச் செவ்வியல் நூல்கள், ச.வே.சுப்பிரமணியன்,மணிவாசகர்

	பதிப்பகம்,சென்னை,2008.
E-Reference	• Tamil Heritage Foundation- www.tamilheritage.orghttp://www.tamilheritage.org • Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library • Project Madurai - www.projectmadurai.org. • Chennai Library- www.chennailibrary.com . • Tamil Universal Digital Library- www.ulib.prg . • Tamil E-Books Downloads- tamale booksdownloads. blogspot.com • Tamil Books on line- books.tamil cube.com • Catalogue of the Tamil books in the Library of British Congress archive.org • Tamil novels on line - books.tamilcube.com

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	பழந்தமிழ் இலக்கியங்களின் தோற்றம், வளர்ச்சி மற்றும் இலக்கியப் பின்னணியை அறிதல்.	K1 & K2	LO1
CO2	சங்க இலக்கியங்களின் அகப்பொருள்,புறப்பொருள் கோட்பாடுகளைப் புரிந்து பழந்தமிழ் இலக்கியக் கருத்துக்களை கல்வி,சமூகம் மற்றும் வாழ்வியல் சூழல்களில் பயன்படுத்தும் திறனைப் பெறுவர்.	K3	LO4
CO3	பழந்தமிழ் இலக்கியங்களை நவீன இலக்கியங்களுடன் ஒப்பிட்டு பகுத்தறிதல்.	K4	LO5
CO4	பழந்தமிழ் இலக்கியங்களில் காணப்படும் வாழ்வியல் நெறிகளை மதிப்பீடு செய்தல்.	K5	LO11
CO5	பழந்தமிழ் இலக்கியம் தொடர்பான ஆய்வு,கருத்தரங்கம், ஒப்படைப்பு மற்றும் படைப்பாக்கப் பயிற்சியினைப் பெறுதல்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos	Programme Outcomes	Programme Specific Outcomes	Mapping Score of Cos with POs &

with Pos & PSOs .										PSOs	
	COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO3**	**PSO3**	**Mean Score**	
	CO1	3	2	2	2	2	**2.2**	2	2	2	**2**	
	CO2	3	3	2	2	2	**2.4**	2	2	2	**2**	
	CO3	3	3	2	3	3	**2.8**	3	3	3	**3**	**2.6**
	CO4	3	3	2	3	3	**2.8**	3	3	3	**3**	
	CO5	3	3	3	3	3	**3**	3	3	3	**3**	
	Overall score for PO						**2.6**	**Overall score for PSO**			**2.6**	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1.சங்க இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் .

2.எட்டுத்தொகை நூல்களின் இலக்கியச் சிறப்பு.

3.பத்துப்பாட்டு நூல்களின் தோற்றமும் வளர்ச்சியும் .

4.முல்லைப்பாட்டில் தலைவியின் உணர்வு.

5. திருக்குறள் காட்டும் வாழ்வியல் நெறிகள்.

6.பதினெண் கீழ்க்கணக்கு நூல்களில் அறக்கருத்துகள்.

7.திரிகடுகம் காட்டும் அறச்சிந்தனைகள்.

8.பழமொழி நானூற்றில் மக்களின் வாழ்க்கை அனுபவங்கள்.

9. புறநானூற்றில் ஔவையார் பாடலின் கருத்துக்களை தொகுக்க.

Seminar Topics

1.சங்க இலக்கியத்தில் திணைகளும் தமிழர் வாழ்வியலும்.

2.திணைக்கோட்பாடுவழி சங்ககால மக்களின் வாழ்க்கைமுறை.

3.முல்லைப்பாட்டில் சங்ககால சமூகப் பண்பாடுகள்.

4.திருக்குறளில் அறநெறிச் சிந்தனைகள்.

5.பழமொழி நானுற்றில் வாழ்வியல் கூறுகள்.

6. பதினெண் கீழ்க்கணக்கு நூல்களில் நீதிக் கருத்துக்கள்.

7. பதினெண் கீழ்க்கணக்கு நூல்களில் அற இலக்கிய மரபு.

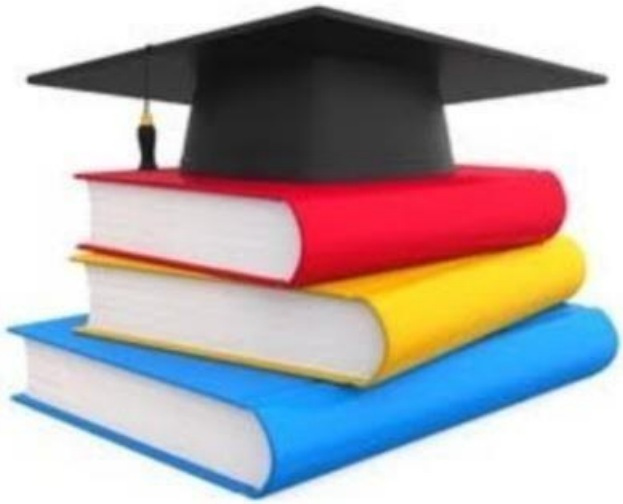
Department of English and Foreign Languages

Syllabus

for

Part II English

(University Department and Affiliated Colleges)



Curriculum Framework and Syllabus for 2026-2029

அன்னை தெரசா மகளிர் பல்கலைக்கழகம்,கொடைக்கானல்
Mother Teresa Women's University,Kodaikanal
(Accredited by NAAC with "A" Grade in the III Cycle)

Department of English and Foreign Languages Minutes of the

BoS meeting

Date & Time: 25.6.2026, 10.30.am Meeting Link: meet.google.com/vsu-qqto-yka

The Department of English and Foreign Languages has convened the Board of Studies for the curriculum of UG & P.G Programme in English offered by the Affiliated Colleges, M.A. English Programme offered by the Department of English and Foreign Languages, Mother Teresa Women's University, Kodaikanal Certificate Programme in English (News Reporting and Environmental Journalism), Part II English, Part I French, and Value Based Education for both MTWU & Affiliated Colleges to be offered from the academic year 2026-2027 onwards.

It is resolved that the Board of Studies of the Department of English having reviewed in detail the syllabus placed before it, hereby, confirmed and approved the curriculum framed for the M. A. English literature (University), M. A. English literature (All Affiliated Colleges) UG B. A. English literature (All Affiliated Colleges) Programmes, Part -II English, Part -I French, Certificate Programme and Value Based Education for the Academic Year 2026-2027.

It is further resolved that the said Curriculum have been framed and revised on the basis of the recommendations of Subject experts, Faculty members, Industry representatives, Alumnae and Student feedback, all of whose suggestions have been systematically considered and incorporated, and that the syllabus duly reflect the emerging trends in English Literature and the current requirements of the Society. The syllabus of Part -II English, Part -I French, Certificate Programme and Value Based Education submitted to the board has been approved.

It is further resolved that the aforementioned syllabus stand approved with minor modifications to the curriculum of the M A. English literature (University), M. A. English literature (All Affiliated Colleges) and UG B. A. English literature (All Affiliated Colleges) programmes, by incorporating the regional needs of the area, and that theses syllabus be implemented with effect from the academic year 2026-2027 for next three years.

25/06/26

Dr. P. Jeyappriya, Professor and Head, Chair Person, BOS
Department of English and Foreign Languages
Mother Teresa Women's University, Kodaikanal

25/6/2026

Dr. P. Nagaraj, Professor and Head,
Department of English,
Bharathiar University,
Coimbatore.

Mr. Lokesh,
Lady Hawk Language Research Foundations,
Gandhipuram,
Coimbatore.

25/6/2026

Dr. Rajaram,
Associate Professor,
Department of English,
M.V.M. Govt. Arts College for Women,
Dindigul.

25.6.2026

Dr. A. Muthu Meena Losini,
Department of English and Foreign Languages
Mother Teresa Women's University,
Kodaikanal

Dr. A. Latha,
Associate Professor,
Department of English
Govt. Arts college for Women,
Nilakottai

MOTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL
DEPARTMENT OF ENGLISH

S.NO.	BoS Members	Members Present	SIGNATURE
1.	**Head of the Department/ CHAIRPERSON**	Dr. P. Jeyappriya, Professor and Head, Department of English and Foreign Language Mother Teresa Women's University, Kodaikanal.	25/06/26
2.	**Subject Expert from other Universities**	Dr.P.Nagaraj, Professor and Head, Department of English, Bharathiar University Maruthamalai Road, Coimbatore 641 046	25/6/2026
3.	**One representative from Alumnae**	S. Esther Vidhya Kiruba	25/06/26.
4.	**One representative from Industrial field**	Mr. LOKESH Lady Hawk Language Research Foundation 289, SMB Toys Complex, 6th Street, Gandhipuram , Coimbatore.	
5.	**Department Staff from our University**	Dr.A.Muthumeena Losini, Asst.Professor	25.6.26
6.		Dr.A.Rajalakshmi, Asst.Professor	
7.	**One Co-ordinator from each affiliated College where the Respective course is offered**	Dr.Rajaram, Associate Professor, Department of English, M.V.M. Government Arts College for Women, Dindigul.	25/6/2026
8.		Dr.A.Latha, Associate Professor, Govt. Arts College for Women, Nilakottai.	
9.	**One Student Representative**	K. A. Anu Aboro.	25.6.26.

GENERIC ENGLISH (PART II)

SEMESTER I- IV

Course Code		Semester I	Year I	Credits	L	T	P	Hrs
Core/ Elective	General English I			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce students to foundational literary genres, including poetry, prose, drama, and short fiction across varying socio-cultural periods.							
LO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through textual analysis of classic and modern literature.							
LO3	To sensitise students to core human values, universal ethics, and ecological awareness embedded within structural texts.							
LO4	To strengthen baseline communicative proficiency by clarifying foundational principles of English grammar and syntax.							
LO5	To enhance workplace readiness and lifelong communication skills by training students to apply active/passive voice and precise tenses.							
UNIT	**Course Contents**							
I	**Poetry** William Wordsworth – *The World is Too Much With Us* W. H. Davies - *Leisure* John Keats - *To Autumn* Robert Frost - *Stopping by Woods on a Snowy Evening* Sarojini Naidu - *Coromandel Fishers*							
II	**Prose** Charles Lamb - *A Dissertation upon Roast Pig* Helen Keller - *Three Days to See*							
III	**Short story** R.K.Narayan – *A Snake in the Grass* Anton Chekov – *The Lady with the Dog*							
IV	**Grammar** Parts of Speech a. Noun b. Pronoun c. Verb d. Adjective e. Adverb f. Preposition g. Conjunction h. Interjection Tenses (Simple, Continuous, Perfect and Perfect Continuous Forms) a. Present Tense b. Past Tense c. Future Tense Active and Passive Voice							

V	**Writing** Reading Comprehension General Essay Writing		
Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	To introduce students to foundational literary genres including poetry, prose, drama, and short fiction across varying socio-cultural periods.	K1 & K2	LO1
CO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through textual analysis of classic and modern literature.	K3	LO4
CO3	To sensitise students to core human values, universal ethics, and ecological awareness embedded within structural texts.	K4	LO5
CO4	To strengthen baseline communicative proficiency by clarifying foundational principles of English grammar and syntax.	K5	LO11
CO5	To enhance workplace readiness and lifelong communication skills by training students to apply active/passive voice and precise tenses.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Literary Gleam: An Anthology of Prose and Poetry* (Standard First-Year UG Foundation Textbook).		
2.	*An Introduction to the Study of English Literature* by B. Prasad.		
References Books **(Latest editions, and the style as given below must be strictly adhered to)**			
1.	*A Glossary of Literary Terms* by M.H. Abrams (Cengage Learning).		
2.	*The Pelican Guide to English Literature (Vol. 1–8)*, edited by Boris Ford.		
Web Resource			
1.	Poetry Foundation: For authorised, printable versions of Wordsworth, Frost, and Keats.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3.	The British Council. —*LearnEnglish*.‖ British Council, https://learnenglish.britishcouncil.org.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**3**	**2.4**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
CO3	**2**	**2**	**3**	**1**	**2**	**2**	**2**	**1**	**2**	**1.6**
CO4	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**3**	**2.6**
CO5	**2**	**2**	**2**	**3**	**2**	**2.2**	**2**	**2**	**2**	**2**
Overall score for PO						**2.2**	**Overall score for PSO**			**2.1**

Course Code		Semester II	Year I	Credits	L	T	P	Hrs
Core/ Elective	General English II			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce students to foundational literary genres, including poetry, prose, drama, and short fiction across varying socio-cultural periods.							
LO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through text analysis of classic and modern literature.							
LO3	To sensitise students to core human values, universal ethics, and ecological awarene**ss** embedded within structural texts.							
LO4	To strengthen foundational syntactic clarity by training students to identify and construct standard sentence patterns.							
LO5	To enhance workplace readiness and situational fluency through conversational skills, dialogue production, and reporting mechanics.							
UNIT	**Course Contents**							
I	**Poetry** Rudyard Kipling - *If* Walt Whitman – *O'Captain, My Captain* Langston Hughes – *Dreams* P.B.Shelley – *Ozymandias* William Blake – *Poison Tree*							
II	**Prose** Malala Yousafzai's *I am Malala(Chapter 1)* M.K. Gandhi's moral and personal growth in *The Story of My Experiments with Truth (Chapters 1- 2)*							
III	**Short story** Stephan Leacock - *My Financial Career* O' Henry -*After 20 Years*							
IV	**Grammar and Communication Skills** Sentence Patterns Direct and Indirect Speech							
V	**Writing** Letter Writing a. Formal Letters b. Application for Leave c. Letter to the Editor d. Complaint Letter e. Enquiry Letter 1. Informal Letters							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Recall and explain structural, thematic, and stylistic traits belonging to specified literary eras and authors.	K1 & K2	LO1
CO2	Analyse and interpret underlying metaphors, socio-cultural contexts, and philosophical concepts across various genres.	K3	LO4
CO3	Critique and evaluate human actions, ethical choices, and social realities depicted across the literary texts.	K4	LO5
CO4	Apply rules of syntax and speech transformation accurately to modify sentences in spoken and written contexts.	K5	LO11
CO5	Synthesize and produce coherent dialogic exchanges, creative scenarios, and professional reports based on real-world situations.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Touchstone: An Anthology of Prose and Poetry* (Orient BlackSwan).		
2.	*Echoes: A Course in Literature and Language* (Macmillan Education).		
References Books **(Latest editions, and the style as given below must be strictly adhered to)**			
1.	*A Glossary of Literary Terms* by M.H. Abrams and Geoffrey Galt Harpham (Cengage Learning).		
2.	*A Remedial English Grammar for Foreign Students* by F.T. Wood (Macmillan Publishers).		
Web Resource			
1.	Poetry Foundation: For authorized, printable versions of works by William Wordsworth, Robert Frost, and John Keats.		
2.	Oxford Reference. —*English Language and Literature*.‖ Oxford University Press, https://www.oxfordreference.com.		
3.	JSTOR. —*Language and Literature Collection*.‖ ITHAKA, https://www.jstor.org.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**3**	**2.4**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
CO3	**2**	**2**	**3**	**2**	**2**	**2.2**	**2**	**2**	**2**	**2**
CO4	**3**	**3**	**2**	**2**	**2**	**2.4**	**3**	**2**	**3**	**2.6**
CO5	**2**	**3**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**2**
Overall score for PO						**2.28**	**Overall score for PSO**			**2.18**

Course Code		Semester III	Year II	Credits	L	T	P	Hrs
Core/ Elective	General English III			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce foundational literary genres including lyrical poetry, reflective prose, social drama, and gothic/realist short fiction across global contexts.							
LO2	To develop analytical skills and aesthetic evaluation by unpacking text metaphors, sensory imagery, and diverse structural narratives.							
LO3	To nurture socio-cultural empathy and moral consciousness by exploring human vulnerabilities, simple life joys, and ethical transformations.							
LO4	To rectify syntactic structural weaknesses through target training in modifiers, non-finite verbs, and common usage errors.							
LO5	To equip students with expressive, real-world communicative output including contextual descriptions, cohesive paragraphing, and personal letters.							
UNIT	**Course Contents**							
I	**Poetry** W. B. Yeats - *The Lake Isle of Innisfree* William Shakespeare – *All the World's a Stage* Robert Herrick - *To Daffodils* Joyce Kilmer - *Trees* Robert Browning – *Incident of the French Camp*							
II	**Prose** Robert Louis Stevenson - *Walking Tours* Jessie Owen - *My Greatest Olympic Prize*							
III	**Short Stories** Isaac Asimov - *The Last Question* Guy de Maupassant - *The Necklace*							
IV	**Grammar and Communication Skills** Degrees of Comparison Gerunds and Infinitives Common Errors in Usage							
V	**Writing** Writing a Paragraph Dialogue writing Report Writing							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Recall and interpret core themes, character motivations, and literary imagery used across various global eras and authors.	K1 & K2	LO1
CO2	Deconstruct and examine underlying societal critiques, cultural practices, and existential concepts embedded within texts	K3	LO4
CO3	Critique and evaluate moral actions, financial vanities, and shifting emotional states depicted in diverse literary modes.	K4	LO5
CO4	Detect structural grammar flaws and construct accurate phrases using precise degrees of comparison, gerunds, and infinitives	K5	LO11
CO5	Draft well-structured paragraphs, situational narratives, and informal messages tailored to personal and social contexts.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Symphony: An Anthology of Prose and Poetry* (Orient BlackSwan).		
2.	*Fluency in English: A Coursebook for Foundation English* (Macmillan Education).		
References Books (Latest editions, and the style as given below must be strictly adhered to)			
1.	*A Glossary of Literary Terms* by M.H. Abrams and Geoffrey Galt Harpham (Cengage Learning).		
2.	*Oxford Guide to English Grammar* by John Eastwood (Oxford University Press - Excellent for structural breakdowns of Gerunds vs. Infinitives).		
Web Resource			
1.	Poetry Foundation: For authorized, printable versions of works by W.B. Yeats, William Wordsworth, Robert Herrick, and Langston Hughes.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3.	Encyclopaedia Britannica. —*English Literature*.‖ Encyclopaedia Britannica, https://www.britannica.com/art/English-literature.		
4.	Oxford Reference. —*English Language and Literature*.‖ Oxford University Press, https://www.oxfordreference.com.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**3**	**2**	**3**	**2.6**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**2**	**2.3**
CO3	**2**	**2**	**3**	**3**	**2**	**2.4**	**2**	**2**	**2**	**2**
CO4	**3**	**1**	**2**	**2**	**2**	**2**	**3**	**2**	**3**	**2.6**
CO5	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
Overall score for PO						**2.36**	**Overall score for PSO**			**2.24**

Course Code		Semester IV	Year II	Credits	L	T	P	Hrs
Core/ Elective	General English IV			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To analyze advanced global literary works across poetry, prose, drama, and short fiction, focusing on complex thematic structures and historical contexts							
LO2	To cultivate psychological insight and mature critical evaluation by unpacking text ironies, social behaviors, and motivational narratives							
LO3	To foster advanced professional language mechanics through sentence restructuring, syntax transformation, and reading comprehension.							
LO4	To develop modern workplace documents including formal electronic correspondence and industry-standard resumes or curricula vitae.							
LO5	To train students in corporate verbal skills covering competitive group discussions, recruitment interviews, and public presentation platforms.							
UNIT	**Course Contents**							
I	**Poetry** Christina Rossetti - *A Birthday* Walter de la Mare - *Silver* Thomas Hardy - *The Darkling Thrush* Wifred Owen – *Strange Meeting* Nissim Ezekiel - *Night of the Scorpion*							
II	**Prose** Martin Luther King – *I Have a Dream* A. P. J. Abdul Kalam - *The Power of Determination*							
III	**Short Stories** Ruskin Bond – *No Room for a Leopard* Saki - *The Open Window*							
IV	**Grammar and Communication Skills** Transformation of Sentences: Simple, Compound, and Complex Sentences Reading Comprehension							
V	**Writing** Resume / CV Writing Writing formal Emails Precise Writing							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Identify and explain stylistic nuances, dramatic techniques, and underlying ironies across global genres	K1 & K2	LO1
CO2	Deconstruct and examine complex sociocultural identities, regional superstitions, and psychological character traits.	K3	LO4
CO3	Critique and evaluate human habits, societal systems, personal resilience models, and ethical dilemmas in literature	K4	LO5
CO4	Analyze syntactic relationships and alter structural data to convert sentences into simple, compound, or complex forms.	K5	LO11
CO5	Design, draft, and perform professional corporate communication tasks including CV creation, business emails, group presentation dynamics, and structured interview strategies.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Confluence: A Course in Literature and Language* (Orient BlackSwan).		
2.	*Prism: An Anthology of Prose, Poetry, and Drama* (Macmillan Education India).		
References Books (Latest editions, and the style as given below must be strictly adhered to)			
1.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy		
2.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy		
Web Resource			
1.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3	Encyclopaedia Britannica. —*English Grammar*.‖ Encyclopaedia Britannica, https://www.britannica.com/topic/grammar.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**2**	**2.2**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**3**	**2.6**	**2**	**3**	**3**	**2.6**
CO3	**2**	**2**	**3**	**3**	**2**	**2.4**	**2**	**2**	**2**	**2**
CO4	**3**	**2**	**2**	**2**	**2**	**2.2**	**3**	**2**	**3**	**2.6**
CO5	**3**	**3**	**2**	**2**	**2**	**2.4**	**2**	**2**	**2**	**2**
Overall score for PO						**2.36**	**Overall score for PSO**			**2.3**

Value Based Education

(for all UG courses)

Course Code	U26VAE201	Semester II	Year I	credits	L	T	P	Hrs
General Course	Value Based Education			2	-	2	-	2
Nature of the Course	Skill Enhancement / Life Skills & Professional Ethics							
Learning objectives	1. To understand the fundamental philosophy of truth, honesty, and maintaining academic and research integrity. 2. To cultivate empathy, compassion, and harmonious relationships across the family, academic campus, and society. 3. To learn and practice reflection, mindfulness, and inner meditative techniques for self-correction.							
Units	Course Contents							
Unit I	**Truth, Honesty, Integrity & Authenticity** Concept of Truth (Satya): philosophical and practical perspectives-Honesty vs convenience-based behaviour-Integrity: alignment of thought, word, and action-Authenticity: being true to oneself-Truthfulness in academics and research							
Unit II	**Values in Family, Campus & Society** Love and compassion in family relationships-Respectful relationships on campus-Conflict resolution through empathy-Building a caring and inclusive society-Role of youth in fostering humane social culture							
Unit III	**Meditation, Reflection & Mindfulness** Concept of meditation and silence-Reflection as a tool for self-correction-Mindfulness in daily life-Awareness of present moment-Integration of inner practices with action							
Unit IV	**Emotional Control & Tolerance** Nature and sources of anger, aggression, and intolerance-Emotional intelligence and self-regulation-Tolerance vs. suppression-Cultivating patience, gentleness, and forgiveness-Managing provocation and disagreement ethically **Practices:** Breathing and pause techniques,-Emotional journaling-Role-play on emotionally charged situations							
Unit V	**Values in Professional & Public Life** Ethics in professions: education, health, business, governance-Transparency, honesty, and responsibility at work-Public life, citizenship, and social accountability-Values-based career choices-Life-long commitment to ethical living							
Question paper Coverage - 100% theory								
Text book	1, N.L. Gupta, *Value Education: Theory and Practice*, Krishna Prakashan Media. 2. R.R. Gaur, R. Sangal, and G.P. Bagaria, *A Foundation Course in Human Values and Professional Ethics*, Excel Books.							

Reference Book	1. S. Dinesh, *Education for Values, Environment and Human Rights*, Discovery Publishing House. 2. M.G. Chitkara, *Education and Human Values*, APH Publishing.			
E-Reference	1. UGC Consortium for Educational Communication (CEC): https://cec.nic.in/ 2. UNESCO Values Education Resource Portal: https://en.unesco.org/			
Course learning outcomes	**On successful completion of the course, the students will be able to**			
	COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
	CO1	**Recall and explain** the core foundations of truth, honesty, professional integrity, and academic authenticity.	K1,K2	LO1, LO2
	CO2	**Apply** empathetic listening, conflict-resolution mechanisms, and mindful self-regulation techniques in daily personal and campus interactions.	**K3**	LO4, LO7
	CO3	**Analyze** various sources of emotional triggers, ethical dilemmas, and the behavioral consequences of convenience-based choices.	**K4**	LO5, LO9
	CO4	**Evaluate** the social impact of inclusive civic citizenship, corporate/governance transparency, and ethical accountability in modern public life.	**K5**	LO11, LO12
	CO5	Evaluate biological roles, structural parameters, and dietary variations like Omega-3/Omega-6 fatty acids while addressing ethical concerns in modern biotechnology.	**K5, K6**	LO2, LO13
	CO6	**Formulate and adopt** a structured personal plan for lifelong ethical living, utilizing emotional journaling, mindfulness, and value-based professional goals.	**K6**	LO14, LO15

Teaching–Learning & Assessment Framework

Teaching Methodology **Experiential & Reflective Learning:** Regular classroom breathing and pause exercises, guided emotional journaling sessions, and peer-to-peer role-plays simulating emotionally charged situations or ethical dilemmas.	**Assessment Types** **Blended Learning:** Reviewing selected case studies on corporate, health, and academic transparency via online open-source educational modules. **Interactive Frameworks:** Group discussions using Think-Pair-Share methodologies focused on real-world conflict resolution, empathy mapping, and establishing strong campus values.

Semester III

U26EVS301

ENVIRONMENTAL STUDIES - **(For all UG courses)**

Course Code	U26EVS301	Semester III	Year II	Credits	L	T	P	Hrs
General Course	Environmental Studies			2	2	-	-	2
Nature of the Course	Employability							
Learning objectives	-To understand the scope and interdisciplinary nature of Environmental Studies, including ecosystem concepts, community ecology, and the relationship between humans and the environment. -To acquire knowledge of natural resources, biodiversity, environmental pollution, and their conservation and management for sustainable environmental development. -To develop an understanding of sustainable development, environmental health, pollution prevention, and the importance of environmental ethics and public awareness. -To familiarize students with national and international environmental laws, policies, and conventions that support environmental protection, biodiversity conservation, and sustainable resource							
Units	Course Contents							
Unit I	**Multidisciplinary nature of environmental studies** The multidisciplinary nature of environmental studies. Definition, Scope and importance. Need for public awareness. Ecosystem: What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chain, food web and ecological succession. Case studies of the following ecosystems: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)							
Unit II	**Natural Resources: Renewable and Non-renewable Resources :** Land Resources and land use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state). Heating of earth and circulation of air; air mass formation and precipitation. Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.							
Unit III	**Biodiversity and Conservation -** Levels of biological diversity :genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot spots. India as a mega-biodiversity nation; Endangered and endemic species of India. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological,							

	economic, social, ethical, aesthetic and Informational value. **Environmental pollution-**Environmental pollution : types, causes, effects and controls; Air, water, soil, chemical and noise pollution. Nuclear hazards and human health risks. Solid waste management: Control measures of urban and industrial waste. Pollution case studies.
Unit IV	**Environmental Policies & Practices-** Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment Laws : Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; International agreements; Montreal and Kyoto protocols and conservation on Biological Diversity (CBD). The Chemical Weapons Convention (CWC). Nature reserves, tribal population and rights, and human, wildlife conflicts in Indian context
Unit V	**Human Communities and the Environment** - Human population and growth: Impacts on environment, human health and welfares. Carbon foot-print. Resettlement and rehabilitation of project affected persons; case studies. Disaster management: floods, earthquakes, cyclones and landslides. Environmental movements: Chipko, Silent valley, Bishnios of Rajasthan. Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). **Field work-** Visit to a local area to document environmental assets-river / forest/ grassland/ hill / mountain
Question paper Coverage - 100% theory	
Reference Book	1.Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt. 2. Gadgil, M., & Guha, R.1993. This Fissured Land: An Ecological History of India. Univ. of California Press. 3. Gleeson,B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge. 4. Gleick, P.H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press. 5. Groom, Martha J. Gary K. Meffe, and Carl Ronald carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006. 6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36-37.

<table>
<tr><td></td><td colspan="4">7. McCully, P.1996. Rivers no more: the environmental effects of dams(pp. 29-64). Zed Books.
8. McNeil, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
9. Odum, E.P., Odum, h.T. & Andrews, J.1971. Fundamentals of Ecology. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. Waste Water Treatement. Oxford and IBH Publishing Co. Pvt. Ltd.
12.Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M.L. 2001. Environmental law and policy in India. Tripathi 1992. 14. Sengupta, R. 2003.Ecology and economics: An approach to sustainable development. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
17. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
18. Warren, C.E. 1971. Biology and Water Pollution Control. WB Saunders.
19. Wilson, E.O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
20. World Commission on environment and Development. 1987. Our Common Future. Oxford University Press.</td></tr>
<tr><td>E-Reference</td><td colspan="4"></td></tr>
<tr><td rowspan="3">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>KLevel</td><td>Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td>Explain the basic concepts of environmental studies, ecosystems, natural resources, biodiversity, and environmental pollution.</td><td>K1 & K2</td><td>LO1</td></tr>
</table>

	CO2	Analyze environmental issues and the impact of human activities on natural resources and ecosystems.	K 4	LO3
	CO3	Evaluate environmental conservation methods, pollution control measures, and environmental laws for sustainable development.	K 5	LO5
	CO4	Apply environmental knowledge to identify environmental problems and suggest suitable solutions through field studies and community participation.	K 3	LO5
	CO5	Demonstrate environmental awareness, ethical responsibility, and sustainable practices for environmental protection.	K 3	LO13,LO14
	CO6	Develop environmental responsibility and participate in environmental conservation and sustainable development activities.	K 6	LO14,LO15

Teaching–Learning & Assessment Framework

Teaching Methodology Experiential learning, Blended Learning, Participative Learning		**Assessment Types** **Written Mode - Exam, Class test, Assignment** Integrated Mode - Paper presentation/ Seminar,

Semester V

Course Code	U26DMG501	Semester V	Year III	Credits	L	T	P	Hrs
General Course	**Disaster Management**			2	2	-	-	2
Nature of the Course	Employability/ Skill Enhancement							
Learning objectives	1. To understand the fundamental classifications of hazards, vulnerabilities, and global DRR roadmaps. 2. To master essential community-based intervention practices, first-aid procedures, and psychosocial support mechanisms. 3. To analyze the institutional, economic, and structural frameworks governing disaster risk mitigation in India. 4. To evaluate geo-climatic profiles and employ standard methodologies for multi-hazard vulnerability assessments. 5.To assess the distinct coastal and highland environmental vulnerabilities specific to India and Tamil Nadu							
Units	Course Contents							
Unit I	**Fundamental Concepts of Disaster and Vulnerability** Myths, Maps, and Mitigation: Disaster Basics, Taming Trouble: How We Classify Hazards and Disasters, Global DRR Roadmaps: Charting Paths Past Disaster Drama, From Chaos to Foresight: How India Learned & Crafted its Disaster Governance, Eyes in the Sky, Brains on the Ground: Geo-Tech vs Disasters							
Unit II	**Disaster Intervention Practices** Community-Based Disaster Risk Reduction, First-Aid and Emergency Procedures, Psychosocial Support in Disaster Management .							
Unit III	**Disaster Management** Components of Disaster Management, Institutional framework for disaster management, Economic Instruments, Structural and Non-Structural Measures for Risk Mitigation, Role of Media, Education, and Civil Society in disaster management, Regional Issues Case studies							
Unit IV	**Major Natural Disasters in India and Tamil Nadu -I** India's Geo-Climatic Profile, Regional Vulnerability Patterns Across Tamil Nadu, Methods and Approaches in Vulnerability Assessment							
Unit V	**Major Natural Disasters in India and Tamil Nadu -II** Coastal Zone Vulnerabilities, Environmental and Socio-economic Vulnerability in the Coastal Plains, Highland Geomorphology and Erosion Vulnerability, Highland Geomorphology and Erosion Vulnerability							
Question paper Coverage - 100% theory								
Text book	1.**Murthy, D. B. N.**, *Disaster Management: Text and Case Studies*, Deep and Deep							

<table>
<tr><td></td><td>Publications.

2.Singh, R. B., Disaster Management, Global Challenges and Local Solutions, Rawat Publications.</td></tr>
<tr><td>Reference Book</td><td>1.Coppola, D. P., Introduction to International Disaster Management, Butterworth-Heinemann.

2.Government of India, National Policy on Disaster Management, NDMA, New Delhi.</td></tr>
<tr><td>E-Reference</td><td>1.NDMA India Portal: https://ndma.gov.in

2. UNDRR Prevention Web: https://www.preventionweb.net</td></tr>
<tr><td>Course learning outcomes</td><td>On successful completion of the course, the students will be able to
<table>
<tr><th>COs</th><th>Course Outcomes</th><th>K Level</th><th>Learning Outcomes (LO1-LO15)</th></tr>
<tr><td>CO1</td><td>Recall and describe basic hazards, classification paradigms, institutional frameworks, and disaster governance roadmaps.</td><td>K 1, K 2</td><td>LO1</td></tr>
<tr><td>CO2</td><td>Apply geo-technical parameters, first-aid emergency procedures, and CBDRR strategies to mitigate field-level disaster risks.</td><td>K 3</td><td>LO4</td></tr>
<tr><td>CO3</td><td>Analyze regional vulnerability patterns, geo-climatic data profiles, and the balance between structural and non-structural mitigation measures.</td><td>K 4</td><td>LO5</td></tr>
<tr><td>CO4</td><td>Evaluate the efficacy of economic instruments, psychosocial support interventions, and the administrative performance of regional civil societies.</td><td>K 5</td><td>LO11</td></tr>
<tr><td>CO5</td><td>Evaluate environmental and socio-economic vulnerabilities within vulnerable coastal and fragile highland geomorphologies.</td><td>K 5, K 6</td><td>LO2, LO13</td></tr>
<tr><td>CO6</td><td>Design inclusive community-led response plans and structural framework models for localized disaster risk reductions.</td><td>K 6</td><td>LO3, LO6</td></tr>
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Teaching–Learning & Assessment Framework	
Teaching Methodology **Experiential Learning:** Hands-on emergency simulations (triage modeling and mock drills) and participatory mapping of community-based vulnerability paths. **Blended Learning:** Real-time analysis of GIS/Geo-Tech tracking tools and exploring spatial vulnerability databases from global DRR portals during dedicated tech laboratory hours. **Interactive Modules:** Strategic problem-solving sessions focusing on policy implementation challenges and public administration parameters aligned with civil service competitive standards.	**Assessment Types** **Written Mode:** Multi-hazard spatial mapping assignments, detailed case study evaluations focusing on recent extreme weather anomalies in Tamil Nadu, and structured periodic class examinations. **Oral Mode:** Think-pair-share simulations focusing on immediate triage response coordination and panel presentations evaluating the socio-economic impacts of post-disaster recovery efforts. **Integrated Mode:** Field-oriented poster presentations on community risk mitigation designs and a comprehensive SWOC analysis reviewing the structural vs non-structural resilience profiles of vulnerable regional coastal boundaries.

SYLLABUS FOR COMMON COURSES
Semester-1
Part – 1 Tamil

MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL – 624101

DEPARTMENT OF -TAMIL STUDIES
PART – I TAMIL

(All UG Courses and Integrated Courses)

Curriculum Framework, Syllabus, and Regulations

(Syllabus under Choice Based Credit System –CBCS)

(For the candidates to be admitted from the Academic Year 2026-2027 onwards)

	CO4	3	3	2	3	3	2.8	3	3	3	3	
	CO5	3	3	3	3	3	3	3	3	3	3	
	Overall score for PO				2.6		Overall score for PSO		2.6		
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark										

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1. சமகால இலக்கியத்தில் சமூகமாற்றங்களின் பிரதிபலிப்பு.
2. தமிழ் நவீன கவிதைகளில் பெண்களின் குரல் மற்றும் சுயஅடையாளம் .
3. சமகால சிறுகதைகளில் நகர வாழ்க்கையின் தாக்கம்.
4. மின்னணு காலத்தில் தமிழ் இலக்கியத்தில் மாற்றங்கள்.
5. சமகால இலக்கியத்தில் சுற்றுச்சூழல் விழிப்புணர்வு.

Seminar Topics

1. சமகால தமிழ் நாவல்களில் மனிதஉறவுகள் மற்றும் மதிப்புகள்.

Course learning outcomes	On successful completion of the course, the students will be able to			
	COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
	CO1	இக்கால இலக்கியங்களை அறிதல்.	K1 & K2	LO1
	CO2	இக்கால இலக்கியங்களைப் பயின்று பகுத்து வகை தொகை செய்தல்.	K3	LO4
	CO3	இக்கால இலக்கியங்களில் சிறந்த படைப்புகளைத் திறனாய்தல்	K4	LO5
	CO4	இக்கால இலக்கியங்களைப் பகுத்தாய்ந்து மதிப்பிடல்.	K5	LO11
	CO5	இலக்கிய ஆக்கங்களை ஆய்வு செய்து, தானே புது கவிதை,நாவல்,சிறுகதை,நாடகம் எழுதப் பயிற்சி பெற்றுதல்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos with Pos & PSOs	Programme Outcomes						Programme Specific Outcomes			Mapping Score of Cos with POs & PSOs		
.	COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score	
	CO1	3	2	2	2	2	2.2	2	2	2	2	2.6
	CO2	3	3	2	2	2	2.4	2	2	2	2	
	CO3	3	3	2	3	3	2.8	3	3	3	3	

	• தமிழில் சிறுகதையின் தோற்றமும் வளர்ச்சியும், க.சிவதம்பி,தமிழ்ப் புத்தகாலயம் ,சென்னை1980. • தமிழ்ச் சிறுகதை வரலாறு,எம்.வேதசகாயகுமார்,சித்திரிகா பதிப்பகம், திருவனந்தபுரம் ,1979. • புதிய உரைநடை ,மா.இராமலிங்கம்,தமிழ்ப் புத்தகாலயம்,சென்னை,1980. • நாடகக் கலை, அவ்வை டி.கே.சண்முகம், அவ்வை பதிப்பகம், சென்னை,1972. • புதிய நோக்கில் தமிழ் நாடக வரலாறு, முனைவர் கோ.கருணாகரன், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,1988. • மேலை நோக்கில் தமிழ்க் கவிதை,ப.மருதநாயகம்,உலகத்தமிழாராய்ச்சி நிறுவனம், தரமணிவெளியீடு, சென்னை,மறுப்பதிப்பு,2001. • நாவல் கலையியல், இராபாலசுப்பிரமணியன்.,உலகத் தமிழாராய்ச்சி நிறுவனம், தரமணிவெளியீடு, சென்னை, மறுப்பதிப்பு,2004. • நாவலும் வாசிப்பும் ஒரு வரலாற்றுப் பார்வை, இரா.ஆவேங்கடாசலபதி , காலச்சுவடு பதிப்பகம், நாகர்கோவில், மறு பதிப்பு,2012. • தமிழ் நாவல்கள் ஒரு மதிப்பீடு,ந.வானமாமலை, நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,மறுபதிப்பு, 1970. • தமிழ் நாவல் அடிப்படைகள்,எஸ்.தோத்தாத்ரி, சிவகங்கை அகரம் பதிப்பகம், 1980. • நாடக மேடை நினைவுகள், பம்மல் சம்பந்த முதலியார்,உலகத் தமிழாராய்ச்சி நிறுவனம்,தரமணி வெளியீடு,சென்னை,1988.
E-Reference	• Tamil Heritage Foundation-www.tamilheritage.orghttp://www.tamilheritage.org • Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library • Project Madurai - www.projectmadurai.org. • Chennai Library- www.chennailibrary.com . • Tamil Universal Digital Library- www.ulib.prg . • Tamil E-Books Downloads- tamale books downloads. blogspot.com • Tamil Books on line- books.tamil cube.com • Catalogue of the Tamil books in the Library of British Congress archive.org • Tamil novels on line - books.tamilcube.com

	2000. • ஒரு பிடி சோறு, ஜெயகாந்தன், தமிழ்ப்பண்ணை பதிப்பகம், சென்னை,1958. • சாதகப் பறவைகள் , இளசை சுந்தரம், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை,2008. • ராஜம் கிருஷ்ணனின் சிறுகதைகள், இராஜம் கிருஷ்ணன், கௌரா பதிப்பகம் சாரதா பதிப்பகம் /, சென்னை, 2016. • வேட்கை, சூர்யகாந்தன் , நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2012. • அந்நியர்கள், ஆர். சூடாமணி, காலச்சுவடு பதிப்பகம், சென்னை ,1980. • மாத்திரை, ஆண்டாள் பிரியதர்ஷினி,உயிர்மை பதிப்பகம், சென்னை 2007. • அரளிவனம், உமா மகேஸ்வரி, காலச்சுவடு பதிப்பகம்,நாகர்கோவில்,2008. • குடகு, ஏ.கே.செட்டியார், நியூ செஞ்சுரி புக் ஹவுஸ்,சென்னை, 2014. • நீதி தேவன் மயக்கம் ,அறிஞர் அண்ணா, பூம்புகார் பதிப்பகம், சென்னை,1947. • மண்ணியல் சிறுதேர், பண்டிதமணி மு. கதிரேசன் செட்டியார், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை ,1957. • புராண நாடகங்கள் , ஜெயந்தி நாகராஜன், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை ,2012. • தகனம் , ஆண்டாள் பிரியதர்ஷினி , நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2022. • வேரில் பழுத்த பலா, சு.சமுத்திரம், அறிவுப் பதிப்பகம், சென்னை, 2022. • தொல்காப்பியம்.ச.வே.சுப்பிரமணியம்,மணிவாசகர்பதிப்பகம், சென்னை,2008.
Reference Book	• புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும், வல்லிக்கண்ணன்,பாவை பப்ளிகேஷன்ஸ், சென்னை, இரண்டாம் பதிப்பு, 2020. • புதுக்கவிதை ஒரு புதுப்பார்வை, பாலா, அகரம் பதிப்பகம்,ஐந்தாம் பதிப்பு,தஞ்சாவூர்,2011. • தமிழ்ச் சிறுகதை வரலாறு, சி.சு.செல்லப்பா, காலச்சுவடு பதிப்பகம், சென்னை,1980. • தமிழ்ச் சிறுகதை – நேற்றும் இன்றும்,ம.திருமலை,(தொகுப்பாசிரியர்), ஐந்திணைப் பதிப்பகம்,சென்னை, 1990.

	உமா மகேஷ்வரி – அரளிவனம்
Unit - III	**உரைநடை,நாடக இலக்கியம்**
	உரைநடை, நாடக இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **ஏ.கே.செட்டியார்** – குடகு. **அறிஞர் அண்ணா** - நீதி தேவன் மயக்கம். **பண்டிதமணி மு.கதிரேசன் செட்டியார்**– மண்ணியல் சிறுதேர். **ஜெயந்தி நாகராஜன்**– புராண நாடகங்கள்.
Unit - IV	**புதின இலக்கியம்**
	புதின இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **ஆண்டாள் பிரியதர்ஷினி** - தகனம். **சு.சமுத்திரம்**-வேரில் பழுத்த பலா.
Unit - V	**இலக்கணம்**
	மொழி முதல் எழுத்துக்கள் , மொழி இறுதி எழுத்துக்கள் ,வல்லெழுத்து மிகும், மிகாஇடங்கள், உடம்படுமெய்,ஈரொற்று வரும் இடங்கள், ஒரு,ஓர் வரும் இடங்கள், தான்,தாம் வரும் இடங்கள்.
Question paper Coverage - 100% theory	
Text book	• பாரதியார் கவிதைகள்,பூம்புகார் பதிப்பகம் ,சென்னை,2015. • பாரதிதாசன் கவிதைகள், மணிவாசகர் பதிப்பகம், சென்னை,1998. • இந்தப் பூக்கள் விற்பனைக்கு அல்ல ,வைரமுத்து, திருமகள் பதிப்பகம், சென்னை,2009. • மு.மேத்தா கவிதைகள்,திருமகள் நிலையம், சென்னை, 1974. • ஒரு கிராமத்து நதி ,சிற்பி பாலசுப்ரமணியம்,கோலம் வெளியீடு, பொள்ளாச்சி, 1998. • உதய நகரிலிருந்து, இரா.மீனாட்சி,கபிலன் பதிப்பகம், புதுச்சேரி ,2006. • ஒரு மாலையும் இன்னொரு மாலையும் , சல்மா, காலச்சுவடு பதிப்பகம், நாகர்கோவில், 2000. • அப்துல் ரகுமான் கவிதைகள் தொகுப்பு,அப்துல் ரகுமான்,நேஷனல் பப்ளிஷர்ஸ் , சென்னை,1974. • புதுமைப்பித்தன் சிறுகதைகள், காலச்சுவடு பதிப்பகம், நாகர்கோவில்

	நிழல் 1. வெளிச்சத்தில் என்னைத் தொடர்கிறது... இருட்டில் என்னைக் கைவிடுகிறது! 2. எத்தனை முயன்றும் மிதிக்க முடிவதில்லை... என் நிழலை! 3. சுவரில் படர்கிறது... ஆனால் சுவரை மறைப்பதில்லை! 4. நண்பனைப் போல கூடி வருகிறது... இரவு வந்ததும் ஒளிகிறது! **ஊசி** 1. காயங்களைச் தைத்து ஆற்றுகிறது... ஆனால் தன் தலையில் ஒரு துளையோடு! 2. துணியை ஊடுருவிச் செல்கிறது... தையலாகிப் பின் தங்குகிறது நூல் மட்டுமே! 3. கிழியக் கிழியத் தைக்கிறது... தியாகத்தின் கூர்மையான அடையாளம்.
Unit - II	**சிறுகதை**
	சிறுகதையின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **புதுமைப்பித்தன்**- சாப விமோசனம். **ஜெயகாந்தன்** – ஒரு பிடி சோறு. **இளசை சுந்தரம்** – சாதகப் பறவைகள். **சூர்ய காந்தன்** –வேட்கை. **இராஜம் கிருஷ்ணன்** – தனிமை. **ஆர்.சூடாமணி** - அந்நியர்கள். **ஆண்டாள் பிரியதர்ஷினி** – மாத்திரை.

	மரபுக்கவிதையும் புதுக்கவிதையும்
Unit - I	மரபுக்கவிதை, புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். **மரபுக்கவிதை** **பாரதியார் கவிதைகள்-** ஞானப் பாடல்கள் (1-25)முழுவதும். **பாரதிதாசன் கவிதைகள்–** தமிழ் (1-10) பாடல்கள். **புதுக்கவிதை** **வைரமுத்து கவிதை** இந்தப் பூக்கள் விற்பனைக்கு அல்ல – ஐந்துபொரிது ஆறுசிறிது. **மு.மேத்தா** தேசப்பிதாவுக்கு ஒரு தெருப் பாடகனின் அஞ்சலி. **சிற்பி பாலசுப்ரமணியம்** ஒரு கிராமத்து நதி–ஓடுஓடு சங்கிலி. **இரா. மீனாட்சி** உதய நகரிலிருந்து – மழையும் நானும். **சல்மா** - நினைவுத்துயர். **அப்துல்ரகுமான்** **ஹைக்கூ -** கண்ணாடி, நிழல், ஊசி. **கண்ணாடி** 1. உடைந்த பிறகுதான் பல முகம் காட்டுகிறது... கண்ணாடி! 2. என்னை அப்படியே ஏற்றுக்கொள்கிறது... என் கண்ணாடி! 3. பொய்யே சொல்வதில்லை... ஆனால், வலது கைக்கு இடது கை காட்டுகிறது! 4. இருட்டில் முகமிழந்து போகிறது... கண்ணாடி!

SEMESTER–1

பொதுத்தமிழ் -1

இக்கால இலக்கியம் - முதலாமாண்டு (முதல் பருவம்–தாள் 1)

இக்கால இலக்கியம்

Course Code	U26TAL101	Semester I	Year I	credits	L	T	P	Hrs
Part-1 Tamil	இக்கால இலக்கியம் .			3	y		-	6
Nature of the Course	Employability / Skill enhancement / Entrepreneurship							
Learning objectivs	SEMESTER–1 • இக்கால இலக்கியங்களை அறிமுகம் செய்தல், அதன் தோற்றம், வளர்ச்சி, வரலாற்றினை அறியும் திறனைப் பெறுவர். மரபுக்கவிதை,புதுக்கவிதையின் தோற்றம், வளர்ச்சி, வரலாற்றினை அறிதல் . • மரபுக்கவிதை,புதுக்கவிதையின் இலக்கண அமைப்பைப் புரிந்து கொள்வர். சிறுகதையின் தோற்றம்,வளர்ச்சி,வரலாற்றினைத் தெரிந்து கொள்வர். சிறுகதையின் இலக்கியச் சிறப்பினை உணர்வர். • தமிழ்ப் புதினம், நாடக, உரைநடை இலக்கியத்தின் தோற்றம், வளர்ச்சி, வரையரை மற்றும் நாடகக்கலையின் சமூகப் பங்களிப்பைப் புரிந்துகொள்ளுவர். தமிழ்ப் புதினம் ,நாடக, உரைநடையின் இலக்கியச் சிறப்புகள் , வகைகளை நினைவு கூர்தல்.							
Units	Course Contents							

Seminar Topics

1.சங்க இலக்கியத்தில் திணைகளும் தமிழர் வாழ்வியலும்.

2.திணைக்கோட்பாடுவழி சங்ககால மக்களின் வாழ்க்கைமுறை.

3.முல்லைப்பாட்டில் சங்ககால சமூகப் பண்பாடுகள்.

4.திருக்குறளில் அறநெறிச் சிந்தனைகள்.

5.பழமொழி நானுற்றில் வாழ்வியல் கூறுகள்.

6. பதினெண் கீழ்க்கணக்கு நூல்களில் நீதிக் கருத்துக்கள்.

7. பதினெண் கீழ்க்கணக்கு நூல்களில் அற இலக்கிய மரபு.

with Pos & PSOs											PSOs	
	COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO3	PSO3	Mean Score	
	CO1	3	2	2	2	2	2.2	2	2	2	2	2.6
	CO2	3	3	2	2	2	2.4	2	2	2	2	
	CO3	3	3	2	3	3	2.8	3	3	3	3	
	CO4	3	3	2	3	3	2.8	3	3	3	3	
	CO5	3	3	3	3	3	3	3	3	3	3	
	Overall score for PO						2.6	Overall score for PSO			2.6	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1.சங்க இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் .

2.எட்டுத்தொகை நூல்களின் இலக்கியச் சிறப்பு.

3.பத்துப்பாட்டு நூல்களின் தோற்றமும் வளர்ச்சியும் .

4.முல்லைப்பாட்டில் தலைவியின் உணர்வு.

5. திருக்குறள் காட்டும் வாழ்வியல் நெறிகள்.

6.பதினெண் கீழ்க்கணக்கு நூல்களில் அறக்கருத்துகள்.

7.திரிகடுகம் காட்டும் அறச்சிந்தனைகள்.

8.பழமொழி நானூற்றில் மக்களின் வாழ்க்கை அனுபவங்கள்.

9. புறநானூற்றில் ஔவையார் பாடலின் கருத்துக்களை தொகுக்க.

	பதிப்பகம்,சென்னை,2008.
E-Reference	• Tamil Heritage Foundation- www.tamilheritage.orghttp://www.tamilheritage.org • Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library • Project Madurai - www.projectmadurai.org. • Chennai Library- www.chennailibrary.com . • Tamil Universal Digital Library- www.ulib.prg . • Tamil E-Books Downloads- tamale booksdownloads. blogspot.com • Tamil Books on line- books.tamil cube.com • Catalogue of the Tamil books in the Library of British Congress archive.org • Tamil novels on line - books.tamilcube.com

Course learning outcomes

On successful completion of the course, the students will be able to

COs	Course Outcomes	K Level	Learning Outcomes (LO1-LO15)
CO1	பழந்தமிழ் இலக்கியங்களின் தோற்றம், வளர்ச்சி மற்றும் இலக்கியப் பின்னணியை அறிதல்.	K1 & K2	LO1
CO2	சங்க இலக்கியங்களின் அகப்பொருள்,புறப்பொருள் கோட்பாடுகளைப் புரிந்து பழந்தமிழ் இலக்கியக் கருத்துக்களை கல்வி,சமூகம் மற்றும் வாழ்வியல் சூழல்களில் பயன்படுத்தும் திறனைப் பெறுவர்.	K3	LO4
CO3	பழந்தமிழ் இலக்கியங்களை நவீன இலக்கியங்களுடன் ஒப்பிட்டு பகுத்தறிதல்.	K4	LO5
CO4	பழந்தமிழ் இலக்கியங்களில் காணப்படும் வாழ்வியல் நெறிகளை மதிப்பீடு செய்தல்.	K5	LO11
CO5	பழந்தமிழ் இலக்கியம் தொடர்பான ஆய்வு,கருத்தரங்கம், ஒப்படைப்பு மற்றும் படைப்பாக்கப் பயிற்சியினைப் பெறுதல்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos	Programme Outcomes	Programme Specific Outcomes	Mapping Score of Cos with POs &

Unit - IV	**இனியவை நாற்பது - திரிகடுகம் – சிறுபஞ்ச மூலம் – ஏலாதி ஆசாரக்கோவை – பழமொழி**
	• **இனியவை நாற்பது** (11-20) அதர் சென்று முதல் சலவரைச் சாரா வரை • **திரிகடுகம்** (11-20) விளியாதான் முதல் ஆசை பிறன்கண் வரை • **சிறுபஞ்ச மூலம்** (11-20) கோறலும் நஞ்சு முதல் பூவாதுகாய்க்கும் வரை • **ஏலாதி** (11-20) அவாஅறுக்கல் முதல் மின் நேர் வரை • **ஆசாரக்கோவை** (11 – 20) உடுத்து அலால் முதல் உண்ணுங்கால் வரை • **பழமொழி** – (11-20) 1. விதிப்பட்ட நூலுணர்ந்து வேற்றுமை யில்லார். 2. கற்றானும் கற்றார்வாய்க் கேட்டானும் இல்லாதார். 3. கல்லாதான் கண்ட கழிநுட்பம் கற்றார்முன் . 4. கல்லாதான் கண்ட கழிநுட்பம் காட்டரிதல். 5. கல்வியா னாய கழிநுட்பம் கல்லார்முன். 6. கல்லா தவரிடைக் கட்டுரையின் மிக்கதோர். 7. கற்றாற்று வாரைக் கறுப்பித்துக் கல்லாதார் . 8. கேட்பாரை நாடிக் கிளக்கப் படும்பொருட்கண். 9. ஒருவ ருரைப்ப உரைத்தால், அதுகொண். 10. துன்னி இருவர் தொடங்கிய மாற்றத்திற்.
Unit - V	**முதுமொழிக் காஞ்சி - களவழி நாற்பது** 5. 1.**முதுமொழிக் காஞ்சி** -(6-10) இல்லைப் பத்து முதல் தண்டாப் பத்து வரை. 5. 2. களவழி நாற்பது முழுவதும்.
Question paper Coverage - 100% theory	
Text book	• சங்க இலக்கியம் மூலமும் உரையும்- ச.வே. சுப்பிரமணியன்,மணிவாசகர் பதிப்பகம்,சென்னை,2014. • பத்துபாட்டு மூலமும் உரையும்,ச.வே. சுப்பிரமணியன்,மணிவாசகர் பதிப்பகம்,சென்னை,2014 • பதினெண்கீழ்க்கணக்கு நூல்கள், அ.மாணிக்கம், வர்த்தமானன் பதிப்பகம், சென்னை,2007.
Reference Book	• தமிழ் இலக்கிய வரலாறு, மு.வரதராசன்,சாகித்ய அகாதெமி பப்ளிகேஷன், சென்னை.1972. • தமிழ்ச் செவ்வியல் நூல்கள், ச.வே.சுப்பிரமணியன்,மணிவாசகர்

	வைக்கும் அறக்கருத்துகள்,அற இலக்கியங்களின் இலக்கிய மதிப்புகள் போன்றவற்றை அறிந்துகொள்ளுதல். • தமிழர்களின் பண்டைய அறவாழ்வுப் பெருமிதங்களை அறிந்து பின்பற்றும் விருப்பத்தைத் தூண்டுதல்.சமுதாய ஒற்றுமை,சமத்துவம்,மனித மாண்பு ஆகியவற்றை வலியுறுத்தல்.சிந்தனைத் திறன் வளர்ச்சி, நல்ல முடிவுகளை எடுக்க உதவும் நெறிமுறைகளை அறியச் செய்தல்.
Units	Course Contents
Unit - I	**சங்க இலக்கியம்**
	1.1. எட்டுத்தொகை, பத்துப்பாட்டு 1.குறிஞ்சித் திணை - ஐங்குறுநூறு-205-கபிலர். 2.முல்லைத் திணை - அகநானூறு-74-மதுரைக் கவுணியன் பூதத்தனார். 3.மருதத் திணை - நற்றிணை-120- மாங்குடி கிழார். 4.நெய்தல் திணை - குறுந்தொகை-345-அண்டர் மகன் குறுவழுதி. 5.பாலைத் திணை - பாலைக்கலி -9-பாலை பாடிய பெருங்கடுங்கோ. **1.2. பத்துப்பாட்டு –**முல்லைப்பாட்டு முழுவதும்.
Unit - II	**புறப்பாடல்கள்**
	புறநானூறு 1. ஔவையார் பாடல்கள்- 91,206,235,392. 2. பாரி மகளிர் -112. 3. பேய்மகள் இளவெயினார் -11. 3. பூதப்பாண்டியன் தேவி பெருங்கோப்பெண்டு – 246. 4. காக்கை பாடினியார் – 278. 5.ஒக்கூர் மாசாத்தியார் – 279. 6.அள்ளூர் நன்முல்லையார் – 306. 7.காவற்பெண்டு -86.
Unit - III	**திருக்குறள் - நாலடியார் – நான்மணிக்கடிகை - இன்னாநாற்பது**
	1. **திருக்குறள் –** அறத்துப்பால்- (அறன் வலியுறுத்தல் – செய்ந்நன்றி அறிதல், நடுவுநிலைமை, ஒழுக்கமுடைமை , அற உடைமை). 2. **நாலடியார், –** பொருட்பால் – (கல்வி – 131- 140) குஞ்சியழகும் முதல் அலகுசால் வரை. 3. **நான்மணிக்கடிகை** (11-20) கன்றாமை முதல் மனைக்குப்பாழ் வரை 4. **இன்னா நாற்பது** (21 – 30) ஈத்தவகையால் முதல் நெடுமரம். வரை

SEMESTER – IV

பொதுத்தமிழ் -4

பழந்தமிழ் இலக்கியம் - இரண்டாமாண்டு (நான்காம் - பருவம் தாள் - 4)

Course Code	U26TAL404	Semester IV	Year II	credits	L	T	P	Hrs
Part-1 Tamil	பழந்தமிழ் இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement/Entrepreneurship							
Learning objectives	• தமிழின் சங்க இலக்கிய வரலாற்றை அறிதல். சங்க இலக்கிய எட்டுத்தொகை நூல்களில் இடம்பெற்றுள்ள ஐந்திணைசார் செய்யுட்கள் பற்றி அறியும் திறனைப் பெறுதல்.` பத்துப்பாட்டில் முல்லைப்பாட்டின் இலக்கியப் பண்பினைக் கற்றல். • தமிழின் அற இலக்கிய வரலாற்றை அறிதல். அற இலக்கியங்கள் முன்							

Participative Learning	**Integrated mode – paper presentation / seminar**

Assignment Topics

1. தமிழ்க் காப்பியங்களின் தோற்றமும் வளர்ச்சியும்.
2. தமிழ்க் காப்பியங்களில் சமயச் சிந்தனைகள்.
3. தமிழ்க் காப்பியங்களின் இலக்கிய மரபும் தாக்கமும்.
4. சிலப்பதிகாரம்- அந்திமாலைச் சிறப்புசெய் காதைச் செய்திகள்.
5. சிலப்பதிகாரம்- இந்திர விழா ஊர் எடுத்த காதைச் செய்திகள்.
6. விழாவறை காதை காதைச் செய்திகள்.
7. ஊரலர் உரைத்த காதைச் செய்திகள்.
8. மலர்வனம் புக்க காதைச் செய்திகள்.
9. பளிக்கறைப் புக்க காதைச் செய்திகள்.
10 .மணிமேகலா தெய்வம் தோன்றிய காதைச் செய்திகள்.
11. சீவகசிந்தாமணி பூமகள் இலம்பகச் செய்திகள்.
12 .குண்டலகேசி யாக்கை நிலையாமை செய்திகள்.
13. கம்பராமயணம் வாலிவதைப் படலச் செய்திகள்.
14. வில்லிபாரதம் சபா பருவச் செய்திகள்.
15. கண்ணப்ப நாயனாரின் பக்தி நெறி.
16. இராவண காவியத்தில் இராவணனின் பாத்திரப் படைப்பு.
17. இராவண காவியத்தில் அறநெறிச் சிந்தனைகள்.
18. இராவண காவியத்தின் இலக்கியப் பங்களிப்பு.

Seminar Topics

1. தமிழ்க் காப்பியங்கள் காட்டும் தமிழர் பண்பாடு.
2. மணிமேகலையில் சமயச் சிந்தனைகள்.
3. காப்பியங்களில் நீதி மற்றும் அறநெறி.
4. கம்பராமயணம் வாலிவதைப் படலம் கதைச் செய்திகள்.
5. சீவகசிந்தாமணியில் இல்லறமும் துறவறமும்.
6. சீவகசிந்தாமணியின் காப்பியச் சிறப்புகள்.
7. தேம்பாவணி முடிசூட்டுப் படலத்தின் இலக்கியப் பங்களிப்பு.
8. கண்ணப்ப நாயனாரின் பக்திச் சிறப்பு.
9. இராவண காவியத்தில் வீரரும் தலைமைத்துவமும்.

	CO2	காப்பிய இலக்கியங்களைப் பயின்று பகுத்து வகை தொகை செய்வர்.	K3	LO4
	CO3	காப்பிய இலக்கியங்களைப் பயின்று ஒப்பீடு செய்வர்.	K4	LO5
	CO4	பிற காப்பிய இலக்கியங்களைப் பகுத்தாய்ந்து மதிப்பிடுவர்.	K5	LO11
	CO5	காப்பியங்களை ஒப்பிட்டு ஆய்வு மேற்கொண்டு தானே புதிய காப்பிய இலக்கியம் உருவாக்கும் சிந்தனை பெறுவர்.	K5 & K6	LO2 LO15 LO3 LO8 LO9

Mapping of Cos with Pos & PSOs

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	Programme Outcomes							**Programme Specific Outcomes**				**Mapping Score of Cos with POs & PSOs**
	COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**Mean Score**	**PSO1**	**PSO2**	**PSO3**	**Mean Score**	
	CO 1	3	2	2	2	2	**2.2**	2	2	2	**2**	
	CO 2	3	3	2	2	2	**2.4**	2	2	2	**2**	
	CO 3	3	3	2	3	3	**2.8**	3	3	3	**3**	**2.6**
	CO 4	3	3	2	3	3	**2.8**	3	3	3	**3**	
	CO 5	3	3	3	3	3	**3**	3	3	3	**3**	
	Overall score for PO						**2.6**	**Overall score for PSO**			**2.6**	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning,	**Assessment Types** **Written mode – exam, class test, assignment**

<table>
<tr><td></td><td>

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</td></tr>
<tr><td>Reference Book</td><td>

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- காப்பியத் தோற்றமும் வளர்ச்சியும் – காசிராசன்,மதி பதிப்பகம்,மதுரை.2000.
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- இஸ்லாமியத் தமிழ் இலக்கிய வரலாறு(தொகுதிஒன்று) ம.முகம்மது உவைஸ்(ம)பீ.மு.அஜ்மல்கான்,மதுரை காமராசர் பல்கலைக்கழகம், மதுரை,1986.
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<tr><td>E-Reference</td><td>

- Tamil Heritage Foundation- www.tamilheritage.orghttp://www.tamilheritage.org
- Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library
- Project Madurai - www.projectmadurai.org.
- Chennai Library- www.chennailibrary.com .
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- Tamil Books on line- books.tamil cube.com
- Catalogue of the Tamil books in the Library of British Congress archive.org
- Tamil novels on line - books.tamilcube.com

</td></tr>
<tr><td>Course learningoutcoms</td><td>
On successful completion of the course, the students will be able to
<table>
<tr><th>COs</th><th>Course Outcomes</th><th>K Level</th><th>Learning Outcomes (LO1-LO15)</th></tr>
<tr><td>CO1</td><td>காப்பிய இலக்கியங்களின் தோற்றம்- வளர்ச்சி பற்றி அறிவர்.</td><td>K1 & K2</td><td>LO1</td></tr>
</table>
</td></tr>
</table>

Units	Course Contents
Unit - I	இரட்டைக் காப்பியங்கள்
	1.1 **சிலப்பதிகாரம்** 1.மங்கல வாழ்த்துப் பாடல். 2.மனை அறம் படுத்த காதை. 3.அந்திமாலை சிறப்புச் செய் காதை. 4.இந்திர விழா ஊர் எடுத்த காதை. 1.2 **மணிமேகலை** முதல் ஐந்து காதைகள்.
Unit - II	**சமண ,பௌத்த காப்பியங்கள்**
	2.1.சீவகசிந்தாமணி – பூமகள் இலம்பகம், முழுவதும். 2.2 .குண்டலகேசி – யாக்கை நிலையாமை.
Unit - III	**கிறித்துவ, இசுலாமிய காப்பியங்கள்**
	3.1.தேம்பாவணி – முடிசூட்டுப் படலம் – சூசை பெற்ற ஏழு வரங்கள். 3.2. சீறாப்புராணம் – ஓநாய் பேசிய படலம்.
Unit - IV	**கம்பராமாயணம் ,வில்லிபாரதம்**
	4.1.கம்பராமாயணம் – கிட்கிந்தா காண்டம் - வாலிவதைப் படலம் (மட்டும்). 4.2. வில்லிபாரதம் – சபா பருவம் முழுவதும்.
Unit - V	**புராணக் காப்பியங்கள்**
	5.1.பெரியபுராணம் – கண்ணப்பநாயனார் புராணம் முழுவதும் 5.2 .இராவண காவியம் – தாய்மொழிப் படலம்(1-11)பாடல்கள் மட்டும்
Question paper Coverage - 100% theory	
Text book	• சிலப்பதிகாரம்,ஞா.மாணிக்கவாசகன்,உமாபதிப்பகம்,சென்னை,2000. • மணிமேகலை – ந.மு.வேங்கடசாமி நாட்டார்,ராமையா பதிப்பகம்,சென்னை.2000. • சீவகசிந்தாமணி , திருத்தக்கதேவர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 2000. • குண்டலகேசி, சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 2000. • தேம்பாவணி,எம்.ஆர்.அடைக்கலசாமி,வர்த்தமானன் பதிப்பகம், சென்னை,1992. • சீறாப்புராணம் ,நாச்சிகுளத்தார் உரை , த்ரீ எம் பதிப்பகம்,சென்னை,1974.

SEMESTER– III

பொதுத்தமிழ் -3

காப்பிய இலக்கியம் - இரண்டாமாண்டு (மூன்றாம் பருவம், தாள் - 3)

Course Code	U26TAL303	Semester III	Year II	credits	L	T	P	Hrs
Part-1 Tamil	காப்பிய இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement							
Learning objectives	• காப்பிய இலக்கிய உருவாக்கம்,அதன் வரையறை,வகைகள் ஆகியவற்றை அறிந்து கொள்ளுதல். சிலப்பதிகாரம் பெருங்காப்பிய மரபிற்குள் வருவதை அடையாளம் காண்பதோடு அதனை விளக்கும் திறனைப் பெறுதல். • தமிழ்ப் புராண இலக்கியத்தின் சிறப்பினை உணர்தல்,சைவ சமயக் கருத்துகளை அறியும் திறனைப் பெற்று காப்பிய அறநெறிகளைப் புரிந்துகொள்ளுதல் • மரபான காப்பிய இலக்கியங்களை உள்வாங்கி,பின்னாளில் எழுந்த கிறித்தவ,இசுலாமியக் காப்பியங்களையும் ஒப்பிட்டு அதன் வளர்நிலைகளைப் புரிந்து கொள்ளுதல். புராண,இதிகாச மரபுகளிலிருந்து,புதிய காப்பிய இலக்கிய விதிகளை அறிந்து கொள்ளுதல்.							

4. இடைக்கால இலக்கியங்களில் அறக்கருத்துகள்.
5. குறவஞ்சி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
6. உலா இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
7. பரணி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
8. பள்ளு இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
9. தனிப்பாடல்களில் இறைச் செய்திகள்.
10. பக்தி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும்.
11. பக்தி இலக்கியத்தின் இறை உணர்வுகள்.
12. சைவ, வைணவ பக்தி இலக்கியங்களில் ஒப்பாய்வு.
13. சிவபுராணம் கூறும் வாழ்வியல் நெறிகள்.

Seminar Topics

1. இடைக்கால இலக்கியங்களில் தமிழ் மொழி வளர்ச்சி.
2. தமிழ் இலக்கிய வரலாற்றில் சிற்றிலக்கிய வகைகளும்-சிறப்புகளும்.
3. பக்தி இயக்கமும் இடைக்காலத் தமிழ் இலக்கிய வளர்ச்சியும்.
4. மூவர் தேவாரத்தில் சமயச் சிந்தனைகள்.
5. மூவர் தேவாரத்தில் பக்தி.
6. திருப்பாவையில் காணப்படும் பக்தி நெறிகள்.
7. சிவபுராணம் காட்டும் சைவத் தத்துவங்கள் .
8. சித்தர் இலக்கியங்களில் சமூகச் சீர்திருத்தக் கருத்துகள்.
9. வள்ளலார் பாடல் செய்திகள்.
10. திருமூலரின் யாக்கை நிலையாமை கருத்துக்கள்.

	Programme Outcomes						Programme Specific Outcomes				Mapping Score of Cos with POs & PSOs
Mapping of Cos with Pos & PSOs .	COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score	2.6
	CO1	3	2	2	2	2	2.2	2	2	2	2	
	CO2	3	3	2	2	2	2.4	2	2	2	2	
	CO3	3	3	2	3	3	2.8	3	3	3	3	
	CO4	3	3	2	3	3	2.8	3	3	3	3	
	CO5	3	3	3	3	3	3	3	3	3	3	
	Overall score for PO						2.6	Overall score for PSO			2.6	
	Strongly Correlating (S) - 3 Marks Moderately Correlating (M) - 2 Marks Weakly Correlating (W) - 1 Mark No Correlation (N) - 0 Mark											

Teaching–Learning & Assessment Framework	
Teaching Methodology Experiential learning, Flipped Learning, Blended Learning, Participative Learning	**Assessment Types** **Written mode – exam, class test, assignment** **Integrated mode – paper presentation / seminar**

Assignment Topics

1. இடைக்கால இலக்கியத்தில் சமூகப் பதிவுகள்.
2. இடைக்கால இலக்கியங்களில் பக்தி உணர்வு.
3. சிற்றிலக்கியங்களின் தோற்றமும் வளர்ச்சியும் .

<table>
<tr><td></td><td>சென்னை. 2017.
• சித்தர் இலக்கியம்- அண்ணாமலைப் பல்கலைக்கழகப் பதிப்பகம், 1988.</td></tr>
<tr><td>E-Reference</td><td>• Tamil Heritage Foundation- www.tamilheritage.orghttp://www.tamilheritage.org
• Tamil virtual University Library- www.tamilvu.org/ library http://www.virtualvu.org/library
• Project Madurai - www.projectmadurai.org.
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• Catalogue of the Tamil books in the Library of British Congress archive.org
• Tamil novels on line - books.tamilcube.com</td></tr>
<tr><td>Course learning outcomes</td><td>On successful completion of the course, the students will be able to
<table>
<tr><th>COs</th><th>Course Outcomes</th><th>K Level</th><th>Learning Outcomes (LO1-LO15)</th></tr>
<tr><td>CO1</td><td>இடைக்கால இலக்கியங்களை அறிதல்.</td><td>K1 & K2</td><td>LO1</td></tr>
<tr><td>CO2</td><td>மூவர்தேவாரத்தின் படைப்புகளைத் திறனாய்தல்.</td><td>K3</td><td>LO4</td></tr>
<tr><td>CO3</td><td>இடைக்ககால இலக்கியங்களை பயின்று பகுத்து வகை தொகை செய்தல்.</td><td>K4</td><td>LO5</td></tr>
<tr><td>CO4</td><td>பக்தி இலக்கிய வளர்ச்சியினைப் பகுத்தாய்தல்.</td><td>K5</td><td>LO11</td></tr>
<tr><td>CO5</td><td>பிற சமய இலக்கியங்களை மதிப்பீடு செய்தல்.</td><td>K5 & K6</td><td>LO2 LO15 LO3 LO8 LO9</td></tr>
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</table>

Question paper Coverage - 100% theory	
Text book	• தேவாரம் (திருமுறை 1–7),சைவ சித்தாந்த நூற்பதிப்புக் கழகம்,சென்னை,1957. • திருவாசகம் (சிவபுராணம் உட்பட)– மாணிக்கவாசகர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1980. • நாலாயிர திவ்ய பிரபந்தம் , ஆழ்வார்கள் (compiled by நாதமுனிகள்), சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1980. • காளமேகப் புலவர், தனிப்பாடல்கள், புலியூர்க் கேசிகன், மங்கை வெளியீடு, சென்னை,2014. • தாயுமானவர், தனிப்பாடல்கள் திரட்டு,கலைஞன் பதிப்பகம்,சென்னை,2001. • காசிம் புலவர் திருப்புகழ்- தனிப்பாடல்கள் , காசிம் புலவர், ஷாஹீல் ஹமீதியா அச்சயாந்திர சாஷைசென்னை, 1953. • இரட்சணிய மனோகரம், எச்.ஏ. கிருஷ்ணபிள்ளை, நாசரேத் பதிப்பகம், நாகர்கோவில், 1890. • திருக்கயிலாய ஞான உலா, சேரமான் பெருமாள் நாயனார்,கௌரா பதிப்பகம், சென்னை,2021. • கலிங்கத்துப்பரணி,புலியூர்க்கேசிகன்,உரை,பாவைபதிப்பகம்,சென்னை,2014. • திருக்குற்றாலக் குறவஞ்சி , திரிகூடராசப்பக் கவிராயர் , சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை,2000. • ஞானப்பள்ளு, பதிப்பாசிரியர்-பேராசிரியர்.ஆ.சதாசிவம், இலங்கை,1968. • நெஞ்சுவிடு தூது , உமாபதி சிவாசாரியார், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை,2000. • திருவருட்பா ,இராமலிங்க அடிகள் (வள்ளலார்), சமரச சுத்த சன்மார்க்க சங்கம், வடலூர்/சென்னை,1999. • திருமந்திரம் , திருமூலர், சைவ சித்தாந்த நூற்பதிப்புக் கழகம், சென்னை, 1999.
Reference Book	• தமிழ்ச் சிற்றிலக்கியங்கள், இரா.சந்திரசேகர்,நாம் தமிழர் பதிப்பகம்,சென்னை, 2012 . • ந.வீ.செயராமன் சிற்றிலக்கியச் செல்வம், மணிவாசகம் பதிப்பகம்,சிதம்பரம். 2010. • மூவர் தேவாரம் சொல்லரசு புலவர்,வீ.சிவஞானம்,விஜயாபதிப்பகம், கோவை,2012. • சிற்றிலக்கியங்களின் தோற்றமும் வளர்ச்சியும்,முத்துச்சண்முகன் மற்றும் நிர்மலா மோகன்,முத்துப் பதிப்பகம்,மதுரை1979. • பக்தி இலக்கிய வரலாறு - முனைவர் த.மேகநாதன் ,காவ்யா பதிப்பகம்,

Units	Course Contents
Unit - I	**மூவர் தேவாரம்**
	பக்தி இலக்கியத்தின் தோற்றமும் வளர்ச்சியும் கற்பிக்கப்பட வேண்டும். 1.கோளறுபதிகம்(1-11 பாடல்கள்)- இரண்டாம் திருமுறை- திருஞானசம்பந்தர். 2.மாசில்வீணையும்(1-10)- ஐந்தாம்திருமுறை- திருநாவுக்கரசர். 3.திருவெண்ணைநல்லூர் பதிகம்-1-10 பாடல்கள்-ஏழாம்திருமுறை – சுந்தரர்.
Unit - II	**பக்தி இலக்கியம்**
	1. சிவபுராணம் முழுவதும் – மாணிக்கவாசகர். 2. பெரியாழ்வார் திருமொழி – திருப்பல்லாண்டு (1 – 12 பாசுரங்கள்) – பெரியாழ்வார். 3. திருப்பாவை முழுவதும் - ஆண்டாள்.
Unit - III	**தனிப்பாடல்கள்**
	1. காளமேகப் புலவரின் தனிப்பாடல்கள் – கடவுள் வாழ்த்து மட்டும். 2. தாயுமானவர் தனிப்பாடல்கள் – பராபரக்கண்ணி. 3. காசிம் புலவர் தனிப்பாடல்கள் – திருப்புகழ் (இசுலாமிய பக்திப் பாடல்கள்). 4. இரட்சணிய மனோகரம் – முதல் 10 பாடல்கள் - எச்.ஏ.கிருஷ்ணபிள்ளை.
Unit - IV	**சிற்றிலக்கியம்**
	திருக்கயிலாய ஞான உலா (1-50) கண்ணிகள் **கலிங்கத்துப்பரணி** –களம் பாடியது. **குறவஞ்சி** – திருக்குற்றாலக் குறவஞ்சி – வசந்தவல்லியின் காதல் **பள்ளு** – ஞானப்பள்ளு இலக்கியம் முழுவதும். **தூது** – நெஞ்சுவிடு தூது முழுவதும்.
Unit - V	**சித்தர் இலக்கியம்**
	5.1 **வள்ளலார் பாடல்கள்** 1."வாடிய பயிரைக் கண்ட போதெல்லாம் வாடினேன் " 2. "எத்தனையோ பேதமுறாத்தொரு உயிரும் 5.2 **திருமூலரின் திருமந்திரம்** யாக்கை நிலையாமை - முதல் தந்திரம் (143-167) 25 பாடல்கள்.

2. சமூக ஊடகங்கள் மற்றும் இக்கால இலக்கிய வளர்ச்சி.

3. சமகால இலக்கியத்தில் இளைஞர்களின் சிந்தனை மற்றும் எதிர்காலம்.

4. சமகால இலக்கியம் மற்றும் பன்முக கலாச்சாரம்.

5. இலக்கியம் மூலம் சமூகவிழிப்புணர்வு உருவாக்கம்.

SEMESTER– II

பொதுத்தமிழ் -2

இடைக்கால இலக்கியம் - முதலாமாண்டு (இரண்டாம் பருவம்–தாள் 2)

Course Code	U26TAL202	Semester II	Year I	credits	L	T	P	Hrs
Part-1 Tamil	இடைக்கால இலக்கியம்			3	y		-	6
Nature of the Course	Employability / Skill enhancement/Entrepreneurship							
Learning objective	• சைவ,வைணவ சமய இலக்கியங்களையும் இலக்கியங்களின் பக்திக் கோட்பாடுகளையும் அவற்றின் பங்களிப்பையும் உணர்தல். தமிழ் இலக்கிய வளர்ச்சியில் பிற சமய நூல்களின் அடிப்படைக் கருத்துக்களைப் புரிந்துகொண்டு அவற்றின் சமய நல்லொழுக்க கோட்பாடுகளை உணர்தல். • கிறித்தவ மற்றும் இசுலாமிய இலக்கியங்களின் தமிழ் இலக்கியத்தின் பண்பாட்டு ஒற்றுமை உணர்வினை அறியும் திறனை அறிந்து பகுத்தறிவு பங்களிப்பை மதிப்பிடுதல். • சிற்றிலக்கியத்தின் இலக்கிய நயத்தை அறிமுகப்படுத்துதல். சிற்றிலக்கிய வகைகளையும் உத்திகளையும் கொள்கைகளையும் அறிதல்.							

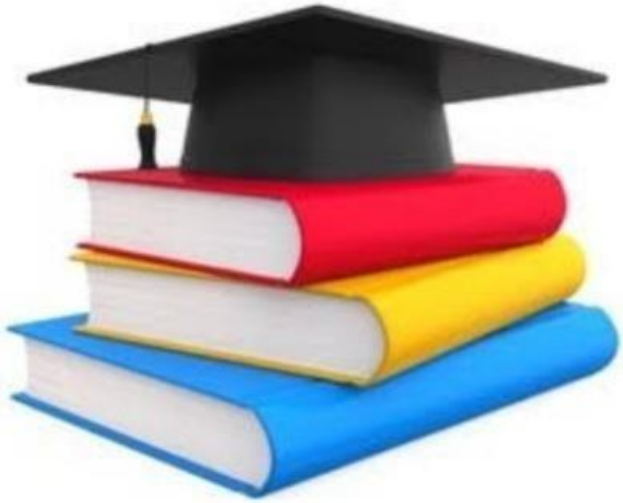
Department of English and Foreign Languages

Syllabus

for

Part II English

(University Department and Affiliated Colleges)



Curriculum Framework and Syllabus for 2026-2029

அன்னை தெரசா மகளிர் பல்கலைக்கழகம்,கொடைக்கானல்
Mother Teresa Women's University,Kodaikanal
(Accredited by NAAC with "A" Grade in the III Cycle)

Department of English and Foreign Languages Minutes of the

BoS meeting

Date & Time: 25.6.2026, 10.30.am Meeting Link: meet.google.com/vsu-qqto-yka

The Department of English and Foreign Languages has convened the Board of Studies for the curriculum of UG & P.G Programme in English offered by the Affiliated Colleges, M.A. English Programme offered by the Department of English and Foreign Languages, Mother Teresa Women's University, Kodaikanal Certificate Programme in English (News Reporting and Environmental Journalism), Part II English, Part I French, and Value Based Education for both MTWU & Affiliated Colleges to be offered from the academic year 2026-2027 onwards.

It is resolved that the Board of Studies of the Department of English having reviewed in detail the syllabus placed before it, hereby, confirmed and approved the curriculum framed for the M. A. English literature (University), M. A. English literature (All Affiliated Colleges) UG B. A. English literature (All Affiliated Colleges) Programmes, Part -II English, Part -I French, Certificate Programme and Value Based Education for the Academic Year 2026-2027.

It is further resolved that the said Curriculum have been framed and revised on the basis of the recommendations of Subject experts, Faculty members, Industry representatives, Alumnae and Student feedback, all of whose suggestions have been systematically considered and incorporated, and that the syllabus duly reflect the emerging trends in English Literature and the current requirements of the Society. The syllabus of Part -II English, Part -I French, Certificate Programme and Value Based Education submitted to the board has been approved.

It is further resolved that the aforementioned syllabus stand approved with minor modifications to the curriculum of the M A. English literature (University), M. A. English literature (All Affiliated Colleges) and UG B. A. English literature (All Affiliated Colleges) programmes, by incorporating the regional needs of the area, and that theses syllabus be implemented with effect from the academic year 2026-2027 for next three years.

25/06/26

Dr. P. Jeyappriya, Professor and Head, Chair Person, BOS
Department of English and Foreign Languages
Mother Teresa Women's University, Kodaikanal

25/6/2026

Dr. P. Nagaraj, Professor and Head,
Department of English,
Bharathiar University,
Coimbatore.

Mr. Lokesh,
Lady Hawk Language Research Foundations,
Gandhipuram,
Coimbatore.

25/6/2026

Dr. Rajaram,
Associate Professor,
Department of English,
M.V.M. Govt. Arts College for Women,
Dindigul.

25.6.2026

Dr. A. Muthu Meena Losini,
Department of English and Foreign Languages
Mother Teresa Women's University,
Kodaikanal

Dr. A. Latha,
Associate Professor,
Department of English
Govt. Arts college for Women,
Nilakottai

MOTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL
DEPARTMENT OF ENGLISH

S.NO.	BoS Members	Members Present	SIGNATURE
1.	**Head of the Department/ CHAIRPERSON**	Dr. P. Jeyappriya, Professor and Head, Department of English and Foreign Language Mother Teresa Women's University, Kodaikanal.	25/06/26
2.	**Subject Expert from other Universities**	Dr.P.Nagaraj, Professor and Head, Department of English, Bharathiar University Maruthamalai Road, Coimbatore 641 046	25/6/2026
3.	**One representative from Alumnae**	S. Esther Vidhya Kiruba	25/06/26.
4.	**One representative from Industrial field**	Mr. LOKESH Lady Hawk Language Research Foundation 289, SMB Toys Complex, 6th Street, Gandhipuram , Coimbatore.	
5.	**Department Staff from our University**	Dr.A.Muthumeena Losini, Asst.Professor	25.6.26
6.		Dr.A.Rajalakshmi, Asst.Professor	
7.	**One Co-ordinator from each affiliated College where the Respective course is offered**	Dr.Rajaram, Associate Professor, Department of English, M.V.M. Government Arts College for Women, Dindigul.	25/6/2026
8.		Dr.A.Latha, Associate Professor, Govt. Arts College for Women, Nilakottai.	
9.	**One Student Representative**	K. A. Anu Aboro.	25.6.26.

GENERIC ENGLISH (PART II)

SEMESTER I- IV

Course Code		Semester I	Year I	Credits	L	T	P	Hrs
Core/ Elective	General English I			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce students to foundational literary genres, including poetry, prose, drama, and short fiction across varying socio-cultural periods.							
LO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through textual analysis of classic and modern literature.							
LO3	To sensitise students to core human values, universal ethics, and ecological awareness embedded within structural texts.							
LO4	To strengthen baseline communicative proficiency by clarifying foundational principles of English grammar and syntax.							
LO5	To enhance workplace readiness and lifelong communication skills by training students to apply active/passive voice and precise tenses.							
UNIT	**Course Contents**							
I	**Poetry** William Wordsworth – *The World is Too Much With Us* W. H. Davies - *Leisure* John Keats - *To Autumn* Robert Frost - *Stopping by Woods on a Snowy Evening* Sarojini Naidu - *Coromandel Fishers*							
II	**Prose** Charles Lamb - *A Dissertation upon Roast Pig* Helen Keller - *Three Days to See*							
III	**Short story** R.K.Narayan – *A Snake in the Grass* Anton Chekov – *The Lady with the Dog*							
IV	**Grammar** Parts of Speech a. Noun b. Pronoun c. Verb d. Adjective e. Adverb f. Preposition g. Conjunction h. Interjection Tenses (Simple, Continuous, Perfect and Perfect Continuous Forms) a. Present Tense b. Past Tense c. Future Tense Active and Passive Voice							

V	**Writing** Reading Comprehension General Essay Writing		
Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	To introduce students to foundational literary genres including poetry, prose, drama, and short fiction across varying socio-cultural periods.	K1 & K2	LO1
CO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through textual analysis of classic and modern literature.	K3	LO4
CO3	To sensitise students to core human values, universal ethics, and ecological awareness embedded within structural texts.	K4	LO5
CO4	To strengthen baseline communicative proficiency by clarifying foundational principles of English grammar and syntax.	K5	LO11
CO5	To enhance workplace readiness and lifelong communication skills by training students to apply active/passive voice and precise tenses.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Literary Gleam: An Anthology of Prose and Poetry* (Standard First-Year UG Foundation Textbook).		
2.	*An Introduction to the Study of English Literature* by B. Prasad.		
References Books **(Latest editions, and the style as given below must be strictly adhered to)**			
1.	*A Glossary of Literary Terms* by M.H. Abrams (Cengage Learning).		
2.	*The Pelican Guide to English Literature (Vol. 1–8)*, edited by Boris Ford.		
Web Resource			
1.	Poetry Foundation: For authorised, printable versions of Wordsworth, Frost, and Keats.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3.	The British Council. —*LearnEnglish*.‖ British Council, https://learnenglish.britishcouncil.org.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**3**	**2.4**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
CO3	**2**	**2**	**3**	**1**	**2**	**2**	**2**	**1**	**2**	**1.6**
CO4	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**3**	**2.6**
CO5	**2**	**2**	**2**	**3**	**2**	**2.2**	**2**	**2**	**2**	**2**
Overall score for PO						**2.2**	**Overall score for PSO**			**2.1**

Course Code		Semester II	Year I	Credits	L	T	P	Hrs
Core/ Elective	General English II			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce students to foundational literary genres, including poetry, prose, drama, and short fiction across varying socio-cultural periods.							
LO2	To cultivate critical thinking, aesthetic appreciation, and interpretive skills through text analysis of classic and modern literature.							
LO3	To sensitise students to core human values, universal ethics, and ecological awarene**ss** embedded within structural texts.							
LO4	To strengthen foundational syntactic clarity by training students to identify and construct standard sentence patterns.							
LO5	To enhance workplace readiness and situational fluency through conversational skills, dialogue production, and reporting mechanics.							
UNIT	**Course Contents**							
I	**Poetry** Rudyard Kipling - *If* Walt Whitman – *O'Captain, My Captain* Langston Hughes – *Dreams* P.B.Shelley – *Ozymandias* William Blake – *Poison Tree*							
II	**Prose** Malala Yousafzai's *I am Malala(Chapter 1)* M.K. Gandhi's moral and personal growth in *The Story of My Experiments with Truth (Chapters 1- 2)*							
III	**Short story** Stephan Leacock - *My Financial Career* O' Henry -*After 20 Years*							
IV	**Grammar and Communication Skills** Sentence Patterns Direct and Indirect Speech							
V	**Writing** Letter Writing a. Formal Letters b. Application for Leave c. Letter to the Editor d. Complaint Letter e. Enquiry Letter 1. Informal Letters							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Recall and explain structural, thematic, and stylistic traits belonging to specified literary eras and authors.	K1 & K2	LO1
CO2	Analyse and interpret underlying metaphors, socio-cultural contexts, and philosophical concepts across various genres.	K3	LO4
CO3	Critique and evaluate human actions, ethical choices, and social realities depicted across the literary texts.	K4	LO5
CO4	Apply rules of syntax and speech transformation accurately to modify sentences in spoken and written contexts.	K5	LO11
CO5	Synthesize and produce coherent dialogic exchanges, creative scenarios, and professional reports based on real-world situations.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Touchstone: An Anthology of Prose and Poetry* (Orient BlackSwan).		
2.	*Echoes: A Course in Literature and Language* (Macmillan Education).		
References Books **(Latest editions, and the style as given below must be strictly adhered to)**			
1.	*A Glossary of Literary Terms* by M.H. Abrams and Geoffrey Galt Harpham (Cengage Learning).		
2.	*A Remedial English Grammar for Foreign Students* by F.T. Wood (Macmillan Publishers).		
Web Resource			
1.	Poetry Foundation: For authorized, printable versions of works by William Wordsworth, Robert Frost, and John Keats.		
2.	Oxford Reference. —*English Language and Literature*.‖ Oxford University Press, https://www.oxfordreference.com.		
3.	JSTOR. —*Language and Literature Collection*.‖ ITHAKA, https://www.jstor.org.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**3**	**2.4**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
CO3	**2**	**2**	**3**	**2**	**2**	**2.2**	**2**	**2**	**2**	**2**
CO4	**3**	**3**	**2**	**2**	**2**	**2.4**	**3**	**2**	**3**	**2.6**
CO5	**2**	**3**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**2**
Overall score for PO						**2.28**	**Overall score for PSO**			**2.18**

Course Code		Semester III	Year II	Credits	L	T	P	Hrs
Core/ Elective	General English III			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To introduce foundational literary genres including lyrical poetry, reflective prose, social drama, and gothic/realist short fiction across global contexts.							
LO2	To develop analytical skills and aesthetic evaluation by unpacking text metaphors, sensory imagery, and diverse structural narratives.							
LO3	To nurture socio-cultural empathy and moral consciousness by exploring human vulnerabilities, simple life joys, and ethical transformations.							
LO4	To rectify syntactic structural weaknesses through target training in modifiers, non-finite verbs, and common usage errors.							
LO5	To equip students with expressive, real-world communicative output including contextual descriptions, cohesive paragraphing, and personal letters.							
UNIT	**Course Contents**							
I	**Poetry** W. B. Yeats - *The Lake Isle of Innisfree* William Shakespeare – *All the World's a Stage* Robert Herrick - *To Daffodils* Joyce Kilmer - *Trees* Robert Browning – *Incident of the French Camp*							
II	**Prose** Robert Louis Stevenson - *Walking Tours* Jessie Owen - *My Greatest Olympic Prize*							
III	**Short Stories** Isaac Asimov - *The Last Question* Guy de Maupassant - *The Necklace*							
IV	**Grammar and Communication Skills** Degrees of Comparison Gerunds and Infinitives Common Errors in Usage							
V	**Writing** Writing a Paragraph Dialogue writing Report Writing							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Recall and interpret core themes, character motivations, and literary imagery used across various global eras and authors.	K1 & K2	LO1
CO2	Deconstruct and examine underlying societal critiques, cultural practices, and existential concepts embedded within texts	K3	LO4
CO3	Critique and evaluate moral actions, financial vanities, and shifting emotional states depicted in diverse literary modes.	K4	LO5
CO4	Detect structural grammar flaws and construct accurate phrases using precise degrees of comparison, gerunds, and infinitives	K5	LO11
CO5	Draft well-structured paragraphs, situational narratives, and informal messages tailored to personal and social contexts.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Symphony: An Anthology of Prose and Poetry* (Orient BlackSwan).		
2.	*Fluency in English: A Coursebook for Foundation English* (Macmillan Education).		
References Books (Latest editions, and the style as given below must be strictly adhered to)			
1.	*A Glossary of Literary Terms* by M.H. Abrams and Geoffrey Galt Harpham (Cengage Learning).		
2.	*Oxford Guide to English Grammar* by John Eastwood (Oxford University Press - Excellent for structural breakdowns of Gerunds vs. Infinitives).		
Web Resource			
1.	Poetry Foundation: For authorized, printable versions of works by W.B. Yeats, William Wordsworth, Robert Herrick, and Langston Hughes.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3.	Encyclopaedia Britannica. —*English Literature*.‖ Encyclopaedia Britannica, https://www.britannica.com/art/English-literature.		
4.	Oxford Reference. —*English Language and Literature*.‖ Oxford University Press, https://www.oxfordreference.com.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**3**	**2**	**3**	**2.6**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**2**	**2.3**
CO3	**2**	**2**	**3**	**3**	**2**	**2.4**	**2**	**2**	**2**	**2**
CO4	**3**	**1**	**2**	**2**	**2**	**2**	**3**	**2**	**3**	**2.6**
CO5	**2**	**3**	**2**	**3**	**2**	**2.4**	**2**	**3**	**1**	**2**
Overall score for PO						**2.36**	**Overall score for PSO**			**2.24**

Course Code		Semester IV	Year II	Credits	L	T	P	Hrs
Core/ Elective	General English IV			3				6
Nature of the Course	**Employability, Skill Development,** Entrepreneurship							
Learning Objectives								
LO1	To analyze advanced global literary works across poetry, prose, drama, and short fiction, focusing on complex thematic structures and historical contexts							
LO2	To cultivate psychological insight and mature critical evaluation by unpacking text ironies, social behaviors, and motivational narratives							
LO3	To foster advanced professional language mechanics through sentence restructuring, syntax transformation, and reading comprehension.							
LO4	To develop modern workplace documents including formal electronic correspondence and industry-standard resumes or curricula vitae.							
LO5	To train students in corporate verbal skills covering competitive group discussions, recruitment interviews, and public presentation platforms.							
UNIT	**Course Contents**							
I	**Poetry** Christina Rossetti - *A Birthday* Walter de la Mare - *Silver* Thomas Hardy - *The Darkling Thrush* Wifred Owen – *Strange Meeting* Nissim Ezekiel - *Night of the Scorpion*							
II	**Prose** Martin Luther King – *I Have a Dream* A. P. J. Abdul Kalam - *The Power of Determination*							
III	**Short Stories** Ruskin Bond – *No Room for a Leopard* Saki - *The Open Window*							
IV	**Grammar and Communication Skills** Transformation of Sentences: Simple, Compound, and Complex Sentences Reading Comprehension							
V	**Writing** Resume / CV Writing Writing formal Emails Precise Writing							

Course Outcomes			
Course Outcomes	On completion of this course, students will be able to		
		K Level	LO
CO1	Identify and explain stylistic nuances, dramatic techniques, and underlying ironies across global genres	K1 & K2	LO1
CO2	Deconstruct and examine complex sociocultural identities, regional superstitions, and psychological character traits.	K3	LO4
CO3	Critique and evaluate human habits, societal systems, personal resilience models, and ethical dilemmas in literature	K4	LO5
CO4	Analyze syntactic relationships and alter structural data to convert sentences into simple, compound, or complex forms.	K5	LO11
CO5	Design, draft, and perform professional corporate communication tasks including CV creation, business emails, group presentation dynamics, and structured interview strategies.	K5 & K6	LO15
Textbook (Latest Editions)			
1.	*Confluence: A Course in Literature and Language* (Orient BlackSwan).		
2.	*Prism: An Anthology of Prose, Poetry, and Drama* (Macmillan Education India).		
References Books (Latest editions, and the style as given below must be strictly adhered to)			
1.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy		
2.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy		
Web Resource			
1.	Poetry Foundation: For authorized, printable editions of poems by Christina Rossetti, Walter de la Mare, and Thomas Hardy.		
2.	Cambridge Dictionary. —*Grammar and Language Reference*.‖ Cambridge University Press, https://dictionary.cambridge.org/grammar.		
3	Encyclopaedia Britannica. —*English Grammar*.‖ Encyclopaedia Britannica, https://www.britannica.com/topic/grammar.		

Mapping of Cos with Pos & PSOs

COs	PO1	PO2	PO3	PO4	PO5	Mean Score	PSO1	PSO2	PSO3	Mean Score
CO1	**3**	**2**	**2**	**2**	**2**	**2.2**	**3**	**2**	**2**	**2.3**
CO2	**2**	**3**	**2**	**3**	**3**	**2.6**	**2**	**3**	**3**	**2.6**
CO3	**2**	**2**	**3**	**3**	**2**	**2.4**	**2**	**2**	**2**	**2**
CO4	**3**	**2**	**2**	**2**	**2**	**2.2**	**3**	**2**	**3**	**2.6**
CO5	**3**	**3**	**2**	**2**	**2**	**2.4**	**2**	**2**	**2**	**2**
Overall score for PO						**2.36**	**Overall score for PSO**			**2.3**

Value Based Education

(for all UG courses)

Course Code	U26VAE201	Semester II	Year I	credits	L	T	P	Hrs
General Course	Value Based Education			2	-	2	-	2
Nature of the Course	Skill Enhancement / Life Skills & Professional Ethics							
Learning objectives	1. To understand the fundamental philosophy of truth, honesty, and maintaining academic and research integrity. 2. To cultivate empathy, compassion, and harmonious relationships across the family, academic campus, and society. 3. To learn and practice reflection, mindfulness, and inner meditative techniques for self-correction.							
Units	Course Contents							
Unit I	**Truth, Honesty, Integrity & Authenticity** Concept of Truth (Satya): philosophical and practical perspectives-Honesty vs convenience-based behaviour-Integrity: alignment of thought, word, and action-Authenticity: being true to oneself-Truthfulness in academics and research							
Unit II	**Values in Family, Campus & Society** Love and compassion in family relationships-Respectful relationships on campus-Conflict resolution through empathy-Building a caring and inclusive society-Role of youth in fostering humane social culture							
Unit III	**Meditation, Reflection & Mindfulness** Concept of meditation and silence-Reflection as a tool for self-correction-Mindfulness in daily life-Awareness of present moment-Integration of inner practices with action							
Unit IV	**Emotional Control & Tolerance** Nature and sources of anger, aggression, and intolerance-Emotional intelligence and self-regulation-Tolerance vs. suppression-Cultivating patience, gentleness, and forgiveness-Managing provocation and disagreement ethically **Practices:** Breathing and pause techniques,-Emotional journaling-Role-play on emotionally charged situations							
Unit V	**Values in Professional & Public Life** Ethics in professions: education, health, business, governance-Transparency, honesty, and responsibility at work-Public life, citizenship, and social accountability-Values-based career choices-Life-long commitment to ethical living							
Question paper Coverage - 100% theory								
Text book	1, N.L. Gupta, *Value Education: Theory and Practice*, Krishna Prakashan Media. 2. R.R. Gaur, R. Sangal, and G.P. Bagaria, *A Foundation Course in Human Values and Professional Ethics*, Excel Books.							

<table>
<tr><td>Reference Book</td><td colspan="4">1. S. Dinesh, Education for Values, Environment and Human Rights, Discovery Publishing House.
2. M.G. Chitkara, Education and Human Values, APH Publishing.</td></tr>
<tr><td>E-Reference</td><td colspan="4">1. UGC Consortium for Educational Communication (CEC): https://cec.nic.in/
2. UNESCO Values Education Resource Portal: https://en.unesco.org/</td></tr>
<tr><td rowspan="8">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>K Level</td><td>Learning Outcomes (LO1-LO15)</td></tr>
<tr><td>CO1</td><td>Recall and explain the core foundations of truth, honesty, professional integrity, and academic authenticity.</td><td>K1,K2</td><td>LO1, LO2</td></tr>
<tr><td>CO2</td><td>Apply empathetic listening, conflict-resolution mechanisms, and mindful self-regulation techniques in daily personal and campus interactions.</td><td>K3</td><td>LO4, LO7</td></tr>
<tr><td>CO3</td><td>Analyze various sources of emotional triggers, ethical dilemmas, and the behavioral consequences of convenience-based choices.</td><td>K4</td><td>LO5, LO9</td></tr>
<tr><td>CO4</td><td>Evaluate the social impact of inclusive civic citizenship, corporate/governance transparency, and ethical accountability in modern public life.</td><td>K5</td><td>LO11, LO12</td></tr>
<tr><td>CO5</td><td>Evaluate biological roles, structural parameters, and dietary variations like Omega-3/Omega-6 fatty acids while addressing ethical concerns in modern biotechnology.</td><td>K5, K6</td><td>LO2, LO13</td></tr>
<tr><td>CO6</td><td>Formulate and adopt a structured personal plan for lifelong ethical living, utilizing emotional journaling, mindfulness, and value-based professional goals.</td><td>K6</td><td>LO14, LO15</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="5">Teaching–Learning & Assessment Framework</td></tr>
<tr><td colspan="2">Teaching Methodology
Experiential & Reflective Learning: Regular classroom breathing and pause exercises, guided emotional journaling sessions, and peer-to-peer role-plays simulating emotionally charged situations or ethical dilemmas.</td><td colspan="3">Assessment Types

Blended Learning: Reviewing selected case studies on corporate, health, and academic transparency via online open-source educational modules.

Interactive Frameworks: Group discussions using Think-Pair-Share methodologies focused on real-world conflict resolution, empathy mapping, and establishing strong campus values.</td></tr>
</table>

Semester III

U26EVS301

ENVIRONMENTAL STUDIES - **(For all UG courses)**

Course Code	U26EVS301	Semester III	Year II	Credits	L	T	P	Hrs
General Course	**Environmental Studies**			**2**	**2**	-	-	2
Nature of the Course	Employability							
Learning objectives	-To understand the scope and interdisciplinary nature of Environmental Studies, including ecosystem concepts, community ecology, and the relationship between humans and the environment. -To acquire knowledge of natural resources, biodiversity, environmental pollution, and their conservation and management for sustainable environmental development. -To develop an understanding of sustainable development, environmental health, pollution prevention, and the importance of environmental ethics and public awareness. -To familiarize students with national and international environmental laws, policies, and conventions that support environmental protection, biodiversity conservation, and sustainable resource							
Units	**Course Contents**							
Unit I	**Multidisciplinary nature of environmental studies** The multidisciplinary nature of environmental studies. Definition, Scope and importance. Need for public awareness. Ecosystem: What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chain, food web and ecological succession. Case studies of the following ecosystems: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)							
Unit II	**Natural Resources: Renewable and Non-renewable Resources :** Land Resources and land use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state). Heating of earth and circulation of air; air mass formation and precipitation. Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.							
Unit III	**Biodiversity and Conservation -** Levels of biological diversity :genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot spots. India as a mega-biodiversity nation; Endangered and endemic species of							

	India. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value. **Environmental pollution**-Environmental pollution : types, causes, effects and controls; Air, water, soil, chemical and noise pollution. Nuclear hazards and human health risks. Solid waste management: Control measures of urban and industrial waste. Pollution case studies.
Unit IV	**Environmental Policies & Practices-** Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment Laws : Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; International agreements; Montreal and Kyoto protocols and conservation on Biological Diversity (CBD). The Chemical Weapons Convention (CWC). Nature reserves, tribal population and rights, and human, wildlife conflicts in Indian context
Unit V	**Human Communities and the Environment** - Human population and growth: Impacts on environment, human health and welfares. Carbon foot-print. Resettlement and rehabilitation of project affected persons; case studies. Disaster management: floods, earthquakes, cyclones and landslides. Environmental movements: Chipko, Silent valley, Bishnios of Rajasthan. Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). **Field work-** Visit to a local area to document environmental assets-river / forest/ grassland/ hill / mountain
Question paper Coverage - 100% theory	
Reference Book	1.Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt. 2. Gadgil, M., & Guha, R.1993. This Fissured Land: An Ecological History of India. Univ. of California Press. 3. Gleeson,B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge. 4. Gleick, P.H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.

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<tr><td></td><td colspan="4">5. Groom, Martha J. Gary K. Meffe, and Carl Ronald carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India’s Himalaya dams. Science, 339: 36-37.
7. McCully, P.1996. Rivers no more: the environmental effects of dams(pp. 29-64). Zed Books.
8. McNeil, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
9. Odum, E.P., Odum, h.T. & Andrews, J.1971. Fundamentals of Ecology. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. Waste Water Treatement. Oxford and IBH Publishing Co. Pvt. Ltd.
12.Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M.L. 2001. Environmental law and policy in India. Tripathi 1992. 14. Sengupta, R. 2003.Ecology and economics: An approach to sustainable development. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
17. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
18. Warren, C.E. 1971. Biology and Water Pollution Control. WB Saunders.
19. Wilson, E.O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
20. World Commission on environment and Development. 1987. Our Common Future. Oxford University Press.</td></tr>
<tr><td>E-Reference</td><td colspan="4"></td></tr>
<tr><td rowspan="2">Course learning outcomes</td><td colspan="4">On successful completion of the course, the students will be able to</td></tr>
<tr><td>COs</td><td>Course Outcomes</td><td>KLevel</td><td>Learning Outcomes (LO1-LO15)</td></tr>
</table>

	CO1	Explain the basic concepts of environmental studies, ecosystems, natural resources, biodiversity, and environmental pollution.	K 1 & K 2	LO1
	CO2	Analyze environmental issues and the impact of human activities on natural resources and ecosystems.	K 4	LO3
	CO3	Evaluate environmental conservation methods, pollution control measures, and environmental laws for sustainable development.	K 5	LO5
	CO4	Apply environmental knowledge to identify environmental problems and suggest suitable solutions through field studies and community participation.	K 3	LO5
	CO5	Demonstrate environmental awareness, ethical responsibility, and sustainable practices for environmental protection.	K 3	LO13,LO14
	CO6	Develop environmental responsibility and participate in environmental conservation and sustainable development activities.	K 6	LO14,LO15

Teaching–Learning & Assessment Framework		
Teaching Methodology Experiential learning, Blended Learning, Participative Learning		**Assessment Types** **Written Mode - Exam, Class test, Assignment** Integrated Mode - Paper presentation/ Seminar,

Semester V

Course Code	**U26DMG501**	**Semester V**	**Year III**	**Credits**	**L**	**T**	**P**	**Hrs**
General Course	**Disaster Management**			2	2	-	-	2
Nature of the Course	Employability/ Skill Enhancement							
Learning	1. To understand the fundamental classifications of hazards, vulnerabilities, and global							

objectives	DRR roadmaps. 2. To master essential community-based intervention practices, first-aid procedures, and psychosocial support mechanisms. 3. To analyze the institutional, economic, and structural frameworks governing disaster risk mitigation in India. 4. To evaluate geo-climatic profiles and employ standard methodologies for multi-hazard vulnerability assessments. 5.To assess the distinct coastal and highland environmental vulnerabilities specific to India and Tamil Nadu
Units	Course Contents
Unit I	**Fundamental Concepts of Disaster and Vulnerability** Myths, Maps, and Mitigation: Disaster Basics, Taming Trouble: How We Classify Hazards and Disasters, Global DRR Roadmaps: Charting Paths Past Disaster Drama, From Chaos to Foresight: How India Learned & Crafted its Disaster Governance, Eyes in the Sky, Brains on the Ground: Geo-Tech vs Disasters
Unit II	**Disaster Intervention Practices** Community-Based Disaster Risk Reduction, First-Aid and Emergency Procedures, Psychosocial Support in Disaster Management .
Unit III	**Disaster Management** Components of Disaster Management, Institutional framework for disaster management, Economic Instruments, Structural and Non-Structural Measures for Risk Mitigation, Role of Media, Education, and Civil Society in disaster management, Regional Issues Case studies
Unit IV	**Major Natural Disasters in India and Tamil Nadu -I** India's Geo-Climatic Profile, Regional Vulnerability Patterns Across Tamil Nadu, Methods and Approaches in Vulnerability Assessment
Unit V	**Major Natural Disasters in India and Tamil Nadu -II** Coastal Zone Vulnerabilities, Environmental and Socio-economic Vulnerability in the Coastal Plains, Highland Geomorphology and Erosion Vulnerability, Highland Geomorphology and Erosion Vulnerability
Question paper Coverage - 100% theory	
Text book	1.**Murthy, D. B. N.**, *Disaster Management: Text and Case Studies*, Deep and Deep Publications. 2.**Singh, R. B.**, *Disaster Management, Global Challenges and Local Solutions*, Rawat Publications.
Reference Book	1.**Coppola, D. P.**, *Introduction to International Disaster Management*, Butterworth-Heinemann. 2.**Government of India**, *National Policy on Disaster Management*, NDMA, New Delhi.

E-Reference	1.**NDMA India Portal:** https://ndma.gov.in 2. **UNDRR Prevention Web:** https://www.preventionweb.net			
Course learning outcomes	**On successful completion of the course, the students will be able to**			
	COs	Course Outcomes	KLevel	Learning Outcomes (LO1-LO15)
	CO1	**Recall and describe** basic hazards, classification paradigms, institutional frameworks, and disaster governance roadmaps.	K1, K2	LO1
	CO2	**Apply** geo-technical parameters, first-aid emergency procedures, and CBDRR strategies to mitigate field-level disaster risks.	**K3**	LO4
	CO3	**Analyze** regional vulnerability patterns, geo-climatic data profiles, and the balance between structural and non-structural mitigation measures.	**K4**	LO5
	CO4	**Evaluate** the efficacy of economic instruments, psychosocial support interventions, and the administrative performance of regional civil societies.	**K5**	LO11
	CO5	**Evaluate** environmental and socio-economic vulnerabilities within vulnerable coastal and fragile highland geomorphologies.	**K5, K6**	LO2, LO13
	CO6	**Design** inclusive community-led response plans and structural framework models for localized disaster risk reductions.	**K6**	LO3, LO6

Teaching–Learning & Assessment Framework

Teaching Methodology	Assessment Types
Experiential Learning: Hands-on emergency simulations (triage modeling and mock drills) and participatory mapping of community-based vulnerability paths. **Blended Learning:** Real-time analysis of GIS/Geo-Tech tracking tools and exploring spatial vulnerability databases from global DRR portals during dedicated tech laboratory hours. **Interactive Modules:** Strategic problem-solving sessions focusing on policy implementation challenges and public administration parameters aligned with civil service competitive standards.	**Written Mode:** Multi-hazard spatial mapping assignments, detailed case study evaluations focusing on recent extreme weather anomalies in Tamil Nadu, and structured periodic class examinations. **Oral Mode:** Think-pair-share simulations focusing on immediate triage response coordination and panel presentations evaluating the socio-economic impacts of post-disaster recovery efforts. **Integrated Mode:** Field-oriented poster presentations on community risk mitigation designs and a comprehensive SWOC analysis reviewing the structural vs non-structural resilience profiles of vulnerable regional coastal boundaries.