STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Computer Science**

Name/s of the Faculty : **Dr. Harshini Manoharan, Dr. Anita Priscilla Mary**

Course Title : **RESEARCH METHODOLOGY**

Course Code : **24DS/PC/RM34**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the basics of research, its methods, types, and process	K1
CO2	understand to review literature and identify hypotheses, questions, and evidence	K2
CO3	apply experimental and statistical methods in computing research	K3
CO4	analyse the effective skills in writing research papers and presenting findings	K4
CO5	develop a professional research report using LaTeX	K5, K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods

Jun 15 – 22, 2026 (Day Order 1- 6)	1 2	1.1 Introduction to Research Meaning, Objectives and Characteristics of research 2.1 Literature Review Reading and Reviewing	K1-K2 K1-K2	6	1-2 1-2	Lecture / Presentation	Discussion
Jun 23 – July 1, 2026 (Day Order 1- 6)	1 2	1.1 Research Methods Vs. Methodology - Types of research 2.1 Literature Review Reading and Reviewing	K1-K2 K1-K2	6	1-2 1-2	Lecture / Presentation	Discussion
July 2 – July 8, 2026 (Day Order 1- 6)	1 2	Research process - Criteria of good research 2.1 Literature Review Hypotheses	K1-K2 K1-K2	6	1-2 1-2	Lecture / Presentation	Discussion
July 9 – 16, 2026 (Day Order 1- 6)	1	1.2 Research Project Shaping a Research Project-Research Planning 2.1 Literature Review	K1-K2	6	1-2	Inquiry based learning	Discussion

	2	Questions	K1-K2		1-2		
July 17 – 24, 2026 (Day Order 1- 6)	1 2	1.2 Research Project Students and Advisors – Checklist 2.1 Literature Review Evidence	K1-K2 K1-K2	6	1-2 1-2	Roleplay	**Component I** Research problem formulation through literature review Review of Research Papers and Background Study – 15 marks Research Problem Identification and Justification – 10 marks
July 25 – 28, 2026 (Day Order 1- 3)	2	2.1 Literature Review	K1-K2	3	1-2	Peer learning	Questionnaire preparation
July 29 – Aug 3, 2026	**C.A. Test – I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	3.1 Experiments for Computing Experimentation- Statistical Principles	K1-K4	3	1-4	Lecture / Presentation	Discussion

Aug 7 – 14, 2026 (Day Order 1- 6)	3	3.2 Writing a Paper Organization-Good Style 4.1 Presentation Editing	K1-K4	6	1-4	Lecture / Demos	Discussion
Aug 17 - 24, 2026 (Day Order 1- 6)	3 4	3.2 Writing a Paper Style Specifics- Punctuation Mathematics 4.1 Presentation Presentations-Slides	K1-K4 K1-K6	6	1-4 1-5	Lecture / Demos	Discussion
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	3 4	3.2 Writing a Paper Algorithms- Graphs, Figures, and Tables 4.1 Presentation Posters	K1-K4 K1-K6	6	1-4 1-5	Lecture / Demos	Discussion
Sep 3 – 11, 2026 (Day Order 1- 6)	3 4	3.2 Writing a Paper Other Professional Writing 4.1 Presentation Ethics	K1-K4 K1-K6	6	1-4 1-5	Lecture / Demos	**Component II (Unit 3)** Preparation of a research paper based on the problem identified. Proposed Research

							Methodology – 10 marks Results and Discussion – 10 marks Presentation – 5 marks
Sep 15-17, 2026 (Day Order 1 - 3)	5	5.1 Report writing Report writing using LATEX for a research problem	K1-K6	3	1-5	Lecture / Demos	Report writing using LATEX for the problem identified
Sep 18 –23, 2026	**C.A. Test – II**						
Sep 24 - 28, 2026 (Day 4 – 6)	5	5.1 Report writing Report writing using LATEX for a research problem	K1-K6	3	1-5	Lecture / Demos	Report writing using LATEX for the problem identified
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	5.1 Report writing Report writing using LATEX for a research problem	K1-K6	6	1-5	Lecture / Demos	Report writing using LATEX for the problem identified
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	5.1 Report writing Report writing using LATEX for a research problem	K1-K6	6	1-5	Lecture / Demos	Report writing using LATEX for the problem identified
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Computer Science**

Name/s of the Faculty : **Dr. Roselin Clara A**

Course Title : **Web Programming**

Course Code : **24DS/PC/WP34**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	define the architecture, features, and components of the .NET framework	K1
CO2	interpret the functionalities of Windows Forms, controls, and events for user input and interface design	K2
CO3	apply the concepts of ADO.NET, namespaces, and data types	K3
CO4	infer concepts of ASP.NET, AJAX, and state management	K4
CO5	evaluate and create integrated .NET applications using LINQ, XML, WPF animations, and AJAX	K5, K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	1.1 Overview of .NET Framework: CLR-CTS-Metadata and Assemblies-.NET Framework Class Library – BCL-Windows Forms – ASP.NET and ASP.NET AJAX-ADO.NET – Tools in the .NET Framework- New Features of .NET Framework: Portable Class Libraries	K1-K2	6	1-2	Lecture /Power Point Presentation	Discussion
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	1.2 Introducing Windows Application Introduction – Creating Windows Forms-Customizing a Form 1.3 Collecting User Input in windows Forms and Events Buttons-Text Boxes- Check Boxes-Radio Buttons	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises

July 2 – July 8, 2026 (Day Order 1- 6)	1	Combo Boxes –Date and Time Picker – Calendar- List Boxes –Checked List Box –List View – Tree View	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises
July 9 – 16, 2026 (Day Order 1- 6)	2	2.1 Presentation and Informational Controls in Windows Forms and Events Labeling- Link Label- Status Bar- Picture Box-Image List Progress Bar-Tool Tip – MDI and Menus Creation 2.2 Data Types in C# Type Conversions – Boxing and Unboxing	K1-K6	6	1-5	Power Point Presentation / Demo	**Component -1 (**25 marks) Assignment on Analysis of Real-Time Applications using .NET Technologies Students analyze how .NET technologies are used in developing practical applications, modules, and enterprise systems.
July 17 – 24, 2026 (Day Order 1- 6)	2	2.3 Namespaces Introduction – Adding a reference to the Namespace – Accessing a predefined Namespace through the using Directive	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises
July 25 – 28, 2026 (Day Order 1- 3)	2	2.4 Introducing to ADO.net Understanding ADO.NET- Creating Connection Strings –	K1-K6	3	1-5	Power Point Presentation / Demo	Practical Exercises

		Creating a Connection to a Database					
July 29 – Aug 3, 2026	**C.A. Test – I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	2	Creating a Command Object- Working with Data Adapters –Using Data Reader work with Database.	K1-K6	3	1-5	Power Point Presentation / Demo	Practical Exercises
Aug 7 – 14, 2026 (Day Order 1- 6)	3	3.1 ASP.NET Life cycle- Specifying a Location for a Web Application - Single-File Page Model - Code-Behind Page Model- Adding controls to web form. 3.2 Web Server Controls The Control Class - The Web Control Class - The Button Control - The Text Box Control	K1-K4	6	1-5	Power Point Presentation / Demo	Practical Exercises
Aug 17 - 24, 2026 (Day Order 1- 6)	3	The Label Control - The Hyper Link Control -The Link Button Control - The Place Holder Control -The Hidden	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises

		Field Control - The Check Box Control - The Radio Button Control - The List Box Control - The Drop-Down List Control -The Image Control -The Image Button Control - The Table Control - Menus -					
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	3 4	Validation Server Controls - Master Page - Web.Config 4.1 State Management Understanding the session object Sessions and the Event Model, Configuring, In-Process Session State	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises
Sep 3 – 11, 2026 (Day Order 1- 6)	4	Out-of- Process Session state Application Object, Query strings, Cookies, View State, Global.asax. 4.2 XML and .NET Basics of XML, Create XML Document - Reading XML with Xml Reader – Reading XML	K1-K6	6	1-5	Power Point Presentation / Demo	Component 2 – 25 marks Mini project Students implement the analysis made in the component 1

		with Xml Document - Working with Xml Node					
Sep 15-17, 2026 (Day Order 1 - 3)	4	4.3 Animations Understanding WPF's Animation services – The Role of the Animation class types- The To, From and by properties – The Role of the Timeline Base Class	K1-K6	3	1-5	Power Point Presentation / Demo	Practical Exercises
Sep 18 –23, 2026	**C.A. Test – II**						
Sep 24 - 28, 2026 (Day 4 – 6)	4	Authoring and Animation in C# Code – Controlling the pace of an animation – Reversing and Looping an Animation – The Role of Story Boards	K1-K6	3	1-5	Power Point Presentation / Demo	Practical Exercises
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	5.1 LINQ Introducing LINQ Queries- Standard Query Operators Introducing LINQ to Dataset, SQL and XML- The Linq Data Source Control. Data Binding –	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises

		Grid View, Details view, Forms view					
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	5.2 ASP. NET AJAX Understanding the need for AJAX, Building a simple ASP.NET page without AJAX, Building a simple ASP.NET page with AJAX	K1-K6	6	1-5	Power Point Presentation / Demo	Practical Exercises
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Computer Science**

Name/s of the Faculty : **Dr. Harshini Manoharan**

Course Title : **BIG DATA ANALYTICS – THEORY AND PRACTICE**

Course Code : **24DS/PC/BA34**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	define the basic concepts of big data analytics and technologies	K1
CO2	explain the concept of HDFS, Map reduce for storing and processing of Big data	K2
CO3	experiment different operations on data using Pig, Hive, and Hbase	K3
CO4	analyse the tools and methods for analyzing Big data analytics model	K4
CO5	develop real time big data analytics applications	K5,K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods

Jun 15 – 22, 2026 (Day Order 1- 6)	1	**1.1 INTRODUCTION TO BIG DATA ANALYTICS** Classification of Digital Data, Structured and Unstructured Data - Introduction to Big Data: Characteristics – Evolution – Definition - Challenges with Big Data - Other Characteristics of Data	K1-K4	5	1-4	Lecture / Presentation	Discussion
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	Why Big Data - Traditional Business Intelligence versus Big Data - Data Warehouse and Hadoop Environment Big Data Analytics: Classification of Analytics	K1-K4	5	1-4	Lecture / Presentation	Quiz
July 2 – July 8, 2026 (Day Order 1- 6)	1	Challenges - Big Data Analytics important - Data Science - Data Scientist - Terminologies used in Big Data Environments.	K1-K4	5	1-4	Lecture / Role Play	**Component I (Unit 1)** Assignment on studying customer behavior patterns in multiple e-commerce platforms – 10 marks

July 9 – 16, 2026 (Day Order 1- 6)	2	**2.1 BIG DATA TECHNOLOGY LANDSCAPE** NoSQL, Comparison of SQL and NoSQL, Hadoop - RDBMS Versus Hadoop - Distributed Computing Challenges	K1-K6	5	1-5	Learning by doing / Demos	Discussion
July 17 – 24, 2026 (Day Order 1- 6)	2	Hadoop Overview - Hadoop Distributed File System - Processing Data with Hadoop - Managing Resources and Applications with Hadoop YARN	K1-K6	5	1-5	Roleplay	Quiz
July 25 – 28, 2026 (Day Order 1- 3)	2	Interacting with Hadoop Ecosystem	K1-K6	2	1-5	Lecture / Presentation	**Component I (Unit 2)** Descriptive Test – 15 marks
July 29 – Aug 3, 2026	**C.A. Test - I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	**3.1 HADOOP AND HDFS** Introduction to Hadoop – RDBMS vs Hadoop-	K1-K6	2	1-5	Lecture / Presentation	Discussion

		distributed computing challenges - A Brief History of Hadoop- The Hadoop Distributed File system-					
Aug 7 – 14, 2026 (Day Order 1- 6)	3	Processing Data with Hadoop - Anatomy of a Map Reduce Works - Anatomy of a Map Reduce Job Run- Job Scheduling- Shuffle and SortTask Execution	K1-K6	5	1-5	Lecture / Demos	Discussion
Aug 17 - 24, 2026 (Day Order 1- 6)	4	**4.1 HADOOP ECO SYSTEM** Hive: Introduction – Architecture - Data Types - File Formats - Hive Query Language Statements – Partitions – Bucketing – Views - Sub- Query	K1-K6	5	1-5	Lecture / Demos	Hive programming
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	4	Joins – Aggregations - Group by and Having - RCFile Implementation - Hive User Defined Function - Serialization and Deserialization. Pig:	K1-K6	5	1-5	Lecture / Demos	Quiz

		Introduction - Anatomy – Features – Philosophy - Use Case for Pig					
Sep 3 – 11, 2026 (Day Order 1- 6)	4	Pig Latin Overview - Pig Primitive Data Types - Running Pig - Execution Modes of Pig - HDFS Commands - Relational Operators - Eval Function - Complex Data Types - Piggy Bank	K1-K6	5	1-5	Lecture / Demos	Pig programming
Sep 15-17, 2026 (Day Order 1 - 3)	4	User-Defined Functions - Parameter Substitution - Diagnostic Operator - Word Count Example using Pig - Pig at Yahoo! - Pig Versus Hive Hbase - HBasics, Concepts.	K1-K6	3	1-5	Lecture / Learning by doing	Discussion
Sep 18 –23, 2026	**C.A. Test - II**						
Sep 24 - 28, 2026 (Day 4 – 6)	5	**5.1 Case Studies** Hadoop Usage at Last.fm - Hadoop and Hive at FacebookNutch Search Engine	K1-K6	3	1-5	Case study	**Component II (25 marks)** **Unit 4** Case study on Hadoop Ecosystem Problem Identification – 5

							Marks Design / Implementation / Analysis – 10 Marks Report – 5 Marks Presentation / Demonstration – 5 Marks
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	Log Processing at Rackspace – Cascading - TeraByte Sort on Apache Hadoop 601	K1-K6	5	1-5	Case study	Seminar/Presentation
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	Using Pig and Wukong to Explore Billion-edge Network Graphs - Recent Trends in Big Data Analytics	K1-K6	5	1-5	Case study	Seminar/Presentation
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **COMPUTER SCIENCE**

Name/s of the Faculty : **Dr. Swetha Margaret T A**

Course Title : **Artificial Intelligence and Data Science**

Course Code : **24DS/PC/AD34**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the core principles of artificial intelligence	K1
CO2	summarise the different AI problem-solving approaches	K2
CO3	apply knowledge representation techniques, predicate logic, statistical reasoning, and learning algorithms to model intelligent behaviour	K3
CO4	analyse the different deep learning frameworks, distributed and parallel AI methodologies	K4
CO5	build advanced AI models with deep learning architectures, PSO, GA and fuzzy system	K5,K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods

Jun 15 – 22, 2026 (Day Order 1- 6) 5 Hrs	1	**1.1 Artificial Intelligence** The AI Problems - The Underlying Assumptions – What is an AI Technique – The Level of the Model – Criteria for Success	K1-K2	5	1-2	Presentation/ Demo/Case studies	AI Myth vs Reality Challenge (students identify misconceptions about AI)
Jun 23 – July 1, 2026 (Day Order 1- 6) 5 Hrs	1	**1.2 Problems, Problem Spaces & Search** Defining the problem as a State Space Search – Production systems – Problem Characteristics - Production Systems Characteristics – Issues in the Design of Search Programs. **1.3 Heuristic Search** Techniques Generate and Test – Hill Climbing	K1-K2	5	1-2	Presentation/ Demo/Case studies	State Space Mapping Activity (design search trees for real-life problems)
July 2 – July 8, 2026 (Day Order 1- 6) 5 Hrs	1 2	Best First Search – Problem Reduction - Constraint Satisfaction – Means ends Analysis. **2.1 Knowledge Representation Issues** Representations and Mappings – Approaches to KR – Issues in KR – The Frame Problem	K1-K2 K1-K5	2 3	1-2 1-5	Presentation/ Demo/Case studies	Escape Room Problem Solving using heuristic search concepts

July 9 – 16, 2026 (Day Order 1- 6) 5 Hrs	2	**2.2 Using Predicate Logic** Representing Simple Facts in Logic - Representing Instances and ISA Relationships – Computable Functions and Predicates – Resolutions – Natural Deductions. **2.3 Representing Knowledge using Rules** Procedural versus Declarative Knowledge – Logic Programming	K1-K6	5	1-5	Presentation/ Demo/Case studies	Logic Puzzle Hackathon (solve AI reasoning puzzles in teams)
July 17 – 24, 2026 (Day Order 1- 6) 5 Hrs	2	Forward Versus Backward Reasoning – Matching – Control Knowledge. **2.4 Statistical Reasoning** Probability and Bayes Theorem - Certainty Factors and Rule based Systems – Bayesian Networks – Dempster's Shafer Theory - Fuzzy Logic	K1-K6	5	1-5	Presentation/ Demo/Case studies	Component - 1 (25 Marks) MCQ Test Bayesian Decision Game (probability-based decision making)
July 25 – 28, 2026 (Day Order 1- 3) 2 Hrs	3	**3.1 Learning** What is Learning - Rote Learning – Learning by Taking Advice – Learning by Problem Solving	K1-K6	2	1-5	Presentation/ Demo/Case studies	AI Concept Map Creation using digital tools
July 29 – Aug 3, 2026	**C.A. Test - I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	Examples: Induction –	K1-	3	1-5	Presentation/	Puzzle-to-Algorithm

3 Hrs		Explanation based Learning – Discovery	K6			Demo/Case studies	Conversion Activity
Aug 7 – 14, 2026 (Day Order 1- 6) 5 Hrs	3	Analogy – Formal Learning Theory – Neural Net Learning and Genetic Learning **3.2 Parallel and Distributed AI** Psychological Modelling – Parallelism in Reasoning	K1-K6	5	1-5	Presentation/ Demo/Case studies	Quiz
Aug 17 - 24, 2026 (Day Order 1- 6) 5 Hrs	3 4	Systems – Distributed Reasoning Systems **4.1 Deep Learning Frameworks and AI Methodologies** Working – Framework – programming Languages – applications	K1-K6 K1 - K6	3 4	1-5	Presentation/ Demo/Case studies	Think-Pair-Share on Distributed Intelligence Systems
Aug 25 – Sep 2, 2026 (Day Order 1- 6) 5 Hrs	4	**4.2 Building DL network using MXNet, TensorFlow and Keras** Core components - MXNet	K1-K6	5	1-5	Presentation/ Demo/Case studies	Framework Comparison Infographic Design
Sep 3 – 11, 2026 (Day Order 1- 6) 5 Hrs	4	TensorFlow and Keras in action	K1-K6	5	1-5	Presentation/ Demo/Case studies	Mini AI Model Demonstration

Sep 15-17, 2026 (Day Order 1 - 3) 2 Hrs	4	Summary and Visualization	K1-K6	2	1-5 1-5	Presentation/ Demo/Case studies	One-Minute AI Explainer Video
Sep 18 –23, 2026	**C.A. Test - II**						
Sep 24 - 28, 2026 (Day 4 – 6) 5 Hrs	5	**5.1 Building and optimizer based on PSO and GA** Algorithm - implementation - variants - PSO and GA in action - Framework and tips	K1-K6	5	1-5	Presentation/ Demo/Case studies	Component 2 (25 Marks) Seminar - 10 Marks Test - 15 Marks (Problem /analytical /logical based)
Sep 29 – Oct 7, 2026 (Day Order 1 - 6) 5 Hrs	5	**5.2 Building an Advanced DL system** CNN - RNN	K1-K6	5	1-5	Presentation/ Demo/Case studies	Research Paper Critique Activity
Oct 8 - 14, 2026 (Day Order 1 - 6) 5 Hrs	5	**5.3 Alternative AI frameworks in DS** ELMs - CapsNets - Fuzzy logic and Fuzzy inference systems	K1-K6	2 3	1-5	Presentation/ Demo/Case studies	Research Paper Critique Activity
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Computer Science**

Name/s of the Faculty : **Dr. Anita Priscilla Mary**

Course Title : **Reinforcement Learning**

Course Code : **24DS/PE/RL13**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall and describe the fundamental concepts, components, and principles of Reinforcement Learning	K1
CO2	explain the structure of learning environments and illustrate how agents interact with them	K2
CO3	apply suitable reinforcement learning approaches to model decision making and learning behaviour in different scenarios	K3
CO4	analyze learning processes and compare different solution strategies for improving agent performance	K4
CO5	evaluate real-world problems and develop appropriate reinforcement learning-based solutions	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	1.1 INTRODUCTION AND BASICS OF REINFORCEMENT LEARNING The Reinforcement Learning Problem - Reinforcement Learning- Examples	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	- Elements of Reinforcement Learning- History of Reinforcement Learning - Applications	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
July 2 – July 8, 2026 (Day Order 1- 6)	1	Ethics in RL- Applying RL for real-world problems- Meta-learning- Multi-Agent Reinforcement Learning	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
July 9 – 16, 2026 (Day Order 1- 6)	2	2.1 TABULAR METHODS Finite Markov Decision Processes	K1-K5	3	1-5	Lecture /Power Point Presentation	Component 1- Case Study Analysis on

							real world scenario like self-driving cars, recommendation systems, stock market trading -25 marks Students identify the RL components and the algorithm used and present
July 17 – 24, 2026 (Day Order 1- 6)	2	Dynamic Programming	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
July 25 – 28, 2026 (Day Order 1- 3)	2	Monte Carlo Methods	K1-K5	2	1-5	Lecture /Power Point Presentation	Discussion based on real time examples

July 29 – Aug 3, 2026	**C.A. Test - I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	3.1 Q-NETWORKS AND LEARNING Temporal difference learning	K1-K5	1	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
Aug 7 – 14, 2026 (Day Order 1- 6)	3	n-step Bootstrapping - Planning and learning with tabular methods	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
Aug 17 - 24, 2026 (Day Order 1- 6)	3	Deep Q networks- DQN, DDQN	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	4	4.1 APPROXIMATE SOLUTION METHODS On-policy prediction with approximation	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on real time examples
Sep 3 – 11, 2026 (Day Order 1- 6)	4	on-policy control with approximation	K1-K5	3	1-5	Lecture /Power Point Presentation	Component 2 – Research Poster and Presentation based on component 1

							case study analysis – 25 marks
Sep 15-17, 2026 (Day Order 1 - 3)	4	on-policy control with approximation	K1-K5	1	1-5	Lecture /Power Point Presentation	Discussion
Sep 18 –23, 2026	**C.A. Test - II**						
Sep 24 - 28, 2026 (Day 4 – 6)	5	5.1 PSYCHOLOGY AND NEUROSCIENCE Prediction and control-neuroscience – basics	K1-K5	2	1-5	Lecture /Power Point Presentation	Discussion
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	reward and prediction	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	case studies	K1-K5	3	1-5	Lecture /Power Point Presentation	Discussion based on case studies
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Computer Science**

Name of the Faculty : **Dr. Diana Judith I**

Course Title : **MULTIMEDIA**

Course Code : **24DS/PE/MM23**

Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	illustrate the concepts of multimedia and World Wide Web	K1, K2
CO2	apply Photoshop, Flash, multimedia concepts to create animations	K3
CO3	design web page with different elements using Dreamweaver	K4

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	**1.1 Introduction** What is Multimedia – Where to use Multimedia – Introduction to Text, Images, Sound, Animation, Video – File Formats - Stages of a	K1-K2	3	1-2	Lecture / Presentation	Peer Discussion

		Multimedia Project – Hardware – Software – Authoring Systems – Multimedia Team – Introduction to designing for the World Wide Web					
Jun 23 – July 1, 2026 (Day Order 1- 6)	2	**2.1 Introduction to Adobe Photoshop** Features of Adobe Photoshop - Workspace basics – Panels and menus, Tools, Rulers, Undo and History, Keyboard Shortcuts, Grids and Guides – Image and Color Basics - Palettes, Customizing Color Pickers and Swatches	K1-K4	3	1-3	Lecture / Demonstration	Quiz / Lab Exercise
July 2 – July 8, 2026 (Day Order 1- 6)	2	Image and Color Basics - Blending Modes – Creating, Opening, Importing images in Photoshop - Layer Basics – Saving the Photoshop File	K1-K4	3	1-3	Lecture / Demonstration	Lab Exercise
July 9 – 16, 2026	2	**2.2 Tools**	K1-K4	3	1-3	Lecture / Demonstration	Creative Editing

(Day Order 1- 6)		Selection Tools - Drawing and Painting - Assisting Tools – Image Adjustments					
July 17 – 24, 2026 (Day Order 1- 6)	2	Repair and Restoration – Reshaping and Transformation – Adding Text	K1-K4	3	1-3	Lecture / Demonstration	**Component I:** Image Manipulation using Photoshop (25 marks)
July 25 – 28, 2026 (Day Order 1- 3)	3	**3.1 Introduction to Adobe Flash** Features, Flash Work Environment - Stage, Menu Bar, Drawing Tools and their Modifiers	K1-K4	2	1-3	Lecture / Demonstration	Lab Exercise
July 29 – Aug 3, 2026	**C.A. Test - I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	Basic Drawing Techniques – Timeline - Layers - Symbols – Libraries -	K1-K4	1	1-3	Lecture / Demonstration	Lab Exercise
Aug 7 – 14, 2026 (Day Order 1- 6)	3	Object types - Image types - Graphics formats - Colors and Resolution	K1-K4	3	1-3	Lecture / Demonstration	Lab Exercise

		3.2 Animation Techniques Animation basics - Tweening and its Types - Shape Hint					
Aug 17 - 24, 2026 (Day Order 1- 6)	3	Frame-by-Frame Animation - Text Animations - Creating Guide Path, Banners - Layer Masking – Onion Skinning	K1-K4	3	1-3	Lecture / Demonstration	Lab Exercise
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	3	Spot Light Effects – Buttons - Linking Images - Slide Shows - Adding Sound to Movies - Working with Scenes - Publishing Movies	K1-K4	3	1-3	Lecture / Demonstration	Visual Storytelling
Sep 3 – 11, 2026 (Day Order 1- 6)	4	**4.1 Introduction to Adobe Dreamweaver** Features of Dreamweaver - Customizing Your Workspace - HTML Basics - Text, Lists and Tables	K1-K4	3	1-3	Lecture / Demonstration	Peer Discussion
Sep 15-17, 2026 (Day Order 1 - 3)	4	Working with Images - Working with the Insert Panel - Copying	K1-K4	2	1-3	Lecture / Demonstration	Lab Exercise

		and Pasting Images from Photoshop - Working with Navigation – Creating Internal Hyperlinks - Creating an Image-based Link - Creating an External Link					
Sep 18 –23, 2026	**C.A. Test - II**						
Sep 24 - 28, 2026 (Day 4 – 6)	4	Working with Forms - Form Elements	K1-K4	1	1-3	Lecture / Demonstration	Basic Website Designing
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	4 5	Working with Forms - Form Elements **5.1 Mini Project** Create a website using Dreamweaver, Photoshop and Flash	K1-K4	1	1-3	Lecture / Demonstration	**Component II:** Written Test (25 marks)
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	**5.1 Mini Project** Create a website using Dreamweaver, Photoshop and Flash	K1-K4	1	1-3	Lecture	Portfolio Evaluation & Feedback
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						