

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : Computer Science
Name/s of the Faculty : Dr. Diana Judith I, Dr. Faustina Joan S P
Course Title : Computer Networks
Course Code : 23CS/MC/CN55
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the network types and the protocol layers.	K1
CO2	infer the TCP/IP protocol layers in detail.	K2
CO3	identify the flow control, error control and address spaces.	K3
CO4	analyse the services provided in various layers.	K4
CO5	estimate the cyclic redundancy check, checksum, Network address translation for various IPV6 address and wireless network standards	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	Introduction Data Communication – Networks – Network Types – Internet History – Standard and Administration	K1, K2	5	1, 2	Participatory Learning Methods - Presentation	Discussion
Jun 23 – July 1, 2026 (Day Order 1 - 6)	1.2	Protocol Layering – TCP/IP Protocol Suite – The OSI Model	K1-K3	5	1-3	Participatory Learning Methods – Presentation / Lecture	Activity – Decode your Network
July 2 – July 8, 2026 (Day Order 1 - 6)	2.1	Physical Layer Data and Signals – Digital Signals – Performance – Transmission Modes	K1-K4	5	1-4	Participatory Learning Methods – Presentation / Lecture	Q&A Session
July 9 – 16, 2026 (Day Order 1- 6)	2.1	Multiplexing – Transmission Media – Switching – Introduction – Circuit-Switched Networks – Packet Switching	K1-K4	5	1-4	Participatory Learning Methods – Presentation / Lecture	Component I: Test – Puzzles, Find the Network by Diagram, Crosswords – 25 marks Portions: Unit 1

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
July 17 – 24, 2026 (Day Order 1- 6)	3.1	Data Link Control – Framing - Fixed Size Framing, Variable size framing, Flow and Error Control	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Quiz
July 25 – 28, 2026 (Day Order 1 - 3)	3.1	Data Link Layer protocols, Cyclic Codes	K1-K5	2	1-5	Participatory Learning Methods – Presentation / Lecture	Activity – Problem Solving
July 29 – Aug 3, 2026	C.A. Test – I						
Aug 4 – 6, 2026 (Day Order 4 - 6)	3.1, 3.2	Cyclic Redundancy Check, Checksum Random Access	K1-K5	3	1-5	Participatory Learning Methods – Presentation / Lecture	Activity – Problem Solving
Aug 7 – 14, 2026 (Day Order 1 - 6)	3.2	Controlled Access, Ethernet Protocol	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Classroom Discussion
Aug 17 – 24, 2026 (Day Order 1- 6)	4.1	Network Layer Logical Addressing - IPv4 Addresses, Addressing	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Open Book Test

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Aug 25 – Sep 2, 2026 (Day Order 1 - 6)	4.1	Network Address Translation IPv6 Addresses – Structure, Address Space	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Activity – Subnetting Practice
Sep 3 – 11, 2026 (Day Order 1 - 6)	4.2	Transport Layer Transport Layer Services Connectionless and Connection Oriented Protocols	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Component 2: Poster presentation submission on any network technology (10 marks) Seminar based on the poster submitted (15 marks) Portions: Units 2-5
Sep 15 – 17, 2026 (Day Order 1 - 3)	5.1	Application layer Domain Naming System – DNS Name Space, Distribution of name space	K1-K5	2	1-5	Participatory Learning Methods – Presentation / Lecture / Simulation	Activity – Know the Internet
Sep 18 –23, 2026	C.A. Test – II						

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Sep 24 – 28, 2026 (Day Order 4 - 6)	5.1	DNS in the Internet, Resolution, DNS messages, Remote logging, Email, File transfer	K1-K5	3	1-5	Participatory Learning Methods – Presentation / Lecture / Simulation	Group Discussion
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5.2	Wireless Networking Components of Wireless Communication System, Wireless Networking Standards	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Quiz
Oct 8 - 14, 2026 (Day Order 1 - 6)	5.2	Bluetooth Technology Other Wireless Technologies	K1-K5	5	1-5	Participatory Learning Methods – Presentation / Lecture	Q&A Session
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 : Ms. Rajalakshmi, Ms. Jeyapriya U
Course Title : Data Science
Course Code : 23CS/MC/DS54
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the fundamentals of data science and python	K1
CO2	explain the data science process	K2
CO3	identify machine learning techniques and derive inferences from data	K3
CO4	examine various machine learning techniques for problems	K4
CO5	evaluate and select optimal machine learning model based on metrics	K5, K6

July 2 – July 8, 2026 (Day Order 1- 6)	2.1	Introduction of Data Science and Data pipeline Data Science - Data Science Process- Data Loading, Storage and File Formats – Reading and Writing Data in Text Format- Binary Data Formats- Interacting with Web API-Interacting with Databases	K1 – K3	5	1 - 3	Lecture and Demo	Case-based discussion
July 9 – 16, 2026 (Day Order 1- 6)	3.2 3.1	Getting Started with Pandas-Introduction to Pandas Data Structures- Essential Functionality Data Cleaning and Preparation Handling Missing Data	K1 – K6	5	1 - 5	Lecture and Demo with guided examples	Case Study
July 17 – 24, 2026 (Day Order 1- 6)	3.1 3.2	Data Transformation- String Manipulation Data Wrangling Join, Combine and Reshape Hierarchical Indexing	K1 – K6	5	1 - 5	Lecture and Demo with guided examples	Component I - Written Test(30 marks) - Unit 1, 2.1

July 25 – 28, 2026 (Day Order 1- 3)	3.2	Combining and Merging Datasets-Reshaping and Pivoting	K1 – K6	3	1 - 5	Lecture and Demo with guided examples	Discussion
July 29 – Aug 3, 2026	C.A. Test - I						
Aug 4 - 6, 2026 (Day Order 4 - 6)	2.2	Visualization Matplotlib – Simple Line Plots- Simple Scatter Plots- Visualizing Errors- Density and Contour Plots	K1 – K6	2	1 - 5	Lecture and Demo with guided examples	Discussion
Aug 7 – 14, 2026 (Day Order 1- 6)	2.2	Histogram, Binnings and Density -Customizing Color Bars Customizing Plot Legends - Multiple Subplots-Text and Annotation-Customizing Ticks	K1 – K6	5	1 - 5	Lecture and Demo with guided examples	Discussion

Aug 17 - 24, 2026 (Day Order 1- 6)	4.1 4.2	Machine Learning Introduction to Machine Learning- Need for Machine Learning Supervised Learning Classifications and Regression- Generalization- Overfitting-Underfitting	K1 – K6	5	1 - 5	Lecture, Case-Study	Real time scenario discussion
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	4.2	Supervised Machine Learning Algorithms- KNearest Neighbor- Linear Models-Naïve Bayes ClassifiersDecision Tree- Ensemble of Decision Trees	K1 – K6	5	1 - 5	Lecture, Demo and Case Studies	Real time scenario discussion

Sep 3 – 11, 2026 (Day Order 1- 6)	4.3	Unsupervised Learning Types of Unsupervised Learning -Dimensionality Reduction, Feature Extraction Clustering- Model Evaluation and Improvement- Cross Validation- Grid Search - Evaluation metrics and Scoring	K1 – K6	5	1 - 5	Lecture, Demo and Case Studies	Component II - Group Case Study – 20 marks – Report, Presentation, Viva - Unit 2.2, 4
Sep 15-17, 2026 (Day Order 1 - 3)	4.2	Using evaluation metrics in model selection	K1 – K6	3	1 - 5	Lecture and Demo	Discussion
Sep 18 –23, 2026	C.A. Test - II						
Sep 24 - 28, 2026 (Day 4 – 6)	5.1	Natural Language Processing (NLP) Language Processing – Texts and Words- Accessing Text Corpora	K1 – K6	2	1 - 5	Lecture and Demo	Real time scenario discussion

Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5.1	Lexical Resources – Wordnet- Normalizing the Text - Tokenizing the Text- Segmentation- Using a Tagger – TaggingAutomatic and Ngram-	K1 – K6	5	1 - 5	Lecture and Case Study Discussion	Real time scenario discussion
Oct 8 - 14, 2026 (Day Order 1 - 6)	5.1	Transformation Based Tagging – Classifying the Text	K1 – K6	5	1 - 5	Lecture and Case Study Discussion	Quiz
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 : Ms. Geethanjali S. and Ms. Nandhini S.
Course Title : Functional Web Development
Course Code : 23CS/MC/FW54
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	define the fundamental concepts of functional programming and React	K1
CO2	explain the importance of react components	K2
CO3	build web pages using functional programming and React concepts	K3
CO4	examine the performance of web applications developed using React	K4
CO5	develop web applications with client and server-side operations in JavaScript using React	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 Functional Programming	K1-K3	5	1-3	Lecture / Presentation / Lab Demo Sessions	Group Discussions / Quiz

		Definition - Benefits of functional programming in web development - Introduction to pure functions and immutability - Functional programming paradigms and principles					
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	1.2 JavaScript Fundamentals for Functional Programming Review of JavaScript basics - Functions as first- class citizens - Higher-order functions and callbacks	K1-K3	5	1-3	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
July 2 – July 8, 2026 (Day Order 1- 6)	1 2	Arrow functions and lexical scoping 2.1 Working with Arrays Transforming arrays with map, filter, and reduce -	K1-K3	5	1-3	Lecture / Presentation / Lab Demo Sessions	Assignment / Lab exercise
July 9 – 16, 2026 (Day Order 1- 6)	2	Composing functions - Dealing with nested arrays - Functional programming with arrays in web development	K1-K3	5	1-3	Lecture / Presentation / Lab Demo Sessions	Component I: Quiz / MCQs (20 marks) [Portions: Units 1, 2.1]

July 17 – 24, 2026 (Day Order 1- 6)	2	2.2 Functional Asynchronous Programming Asynchronous JavaScript with Promises- Chaining and error handling in Promises - Using async/await for asynchronous operations - Functional approaches to handling asynchronous code	K1-K3	5	1-3	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
July 25 – 28, 2026 (Day Order 1- 3)	3	3.1 Introduction to React Introduction to React and its significance - Setting up a development environment	K1-K6	2	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
July 29 – Aug 3, 2026	C.A. Test - I						
Aug 4 - 6, 2026 (Day Order 4 - 6)	3	Creating and rendering React components - Incorporating JSX with Babel	K1-K6	3	1-5	Lecture / Presentation / Lab Demo Sessions	Assignment / Lab exercise
Aug 7 – 14, 2026 (Day Order 1- 6)	3	3.2 Component Development Understanding the component lifecycle - Developing functional	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise

		and class components -					
Aug 17 - 24, 2026 (Day Order 1- 6)	3	Using props: Passing data, Validating props, creating custom validators, default props Handling events and user interactions	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Analysing existing websites
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	4	4.1 State Management and Hooks Managing component state - Introduction to React Hooks - useState, useEffect - Implementing custom hooks for component logic - Applying hooks for functional component development	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
Sep 3 – 11, 2026 (Day Order 1- 6)	4	4.2 State Management with Reducers (or Context API) Introduction to Reducers (or Context API) - Actions, reducers, and the store - Connecting Reducers to a React application	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise

Sep 15-17, 2026 (Day Order 1 - 3)	4	Managing application state with Redux	K1-K6	2	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
Sep 18 –23, 2026	C.A. Test - II						
Sep 24 - 28, 2026 (Day 4 – 6)	5	5.1 Forms and User Input Handling user input and form data in React- Building controlled and uncontrolled form components	K1-K6	3	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	Validating form data and implementing custom validation logic	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Component II: Mini-Project (30 marks: Project Storyboard – 10 marks, Project design, logic, viva – 20 marks) [Portions: All units to be incorporated]
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	5.2 CRUD Operations	K1-K6	5	1-5	Lecture / Presentation / Lab Demo Sessions	Quiz / Lab exercise
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 : Ms. Rajalakshmi, Ms. Jeyapriya U
Course Title : ESSENTIALS OF DATA SCIENCE PRACTICAL
Course Code : 23CS/MC/P452
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the fundamentals of python language	K1
CO2	interpret the use of data after acquisition, cleansing, analytics, and visualization	K2
CO3	identify machine learning techniques and derive inferences from data	K3
CO4	examine the machine learning algorithms to manage, explore, and deep understanding of data	K4
CO5	design and construct a novel solution for a scenario/application	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	Execute Python commands using interpreter (IPython/Jupyter). Programs using: Variables and operators Conditional statements and loops Data structures: List, tuple, dictionary operations	K1 – K6	3	1 - 5	Demo	Practical Exercises
Jun 23 – July 1, 2026 (Day Order 1- 6)	1, 2	Functions: Factorial, palindrome File handling: Create, read, write, append file The installation of python packages - Scikit-learn toy datasets	K1 – K6	3	1 - 5	Demo	Practical Exercises
July 2 – July 8, 2026 (Day Order 1- 6)	3	Load datasets from: CSV , Excel, JSON Read/write data files Explore dataset (head, shape, info)	K1 – K6	3	1 - 5	Demo	Practical Exercises

July 9 – 16, 2026 (Day Order 1- 6)	4, 5	Handle missing data: Detect null values Replace with mean/median/mode Remove duplicates	K1 – K6	3	1 - 5	Demo	Practical Exercises
July 17 – 24, 2026 (Day Order 1- 6)	5,6	Convert categorical to numerical Perform: Normalization, Standardization	K1 – K6	3	1 - 5	Demo	Component 1 –25 marks - Practical Test Portions : Exercises 1-5
July 25 – 28, 2026 (Day Order 1- 3)	7,8	Merge datasets, Reshape datasets, Combine datasets Create pivot tables Perform indexing	K1 – K6	2	1 - 5	Demo	Practical Exercises
July 29 – Aug 3, 2026	C.A. Test - I						
Aug 4 - 6, 2026 (Day Order 4 - 6)	19	Plot: Line chart, Bar chart, Scatter plot	K1 – K6	1	1 - 5	Demo	Practical Exercises
Aug 7 – 14, 2026 (Day Order 1- 6)	19	Histogram Density Customise Titles, labels, Legends, Subplots	K1 – K6	3	1 - 5	Demo	Practical Exercises

Aug 17 - 24, 2026 (Day Order 1- 6)	7	Split dataset into X and y Perform train-test split Demonstrate overfitting vs underfitting	K1 – K6	3	1 - 5	Demo	Practical Exercises
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	9,10,11,12 ,13, 14	K-Nearest Neighbors, Linear Regression, Naive Bayes, Decision Tree, Random Forest	K1 – K6	3	1 - 5	Demo	Practical Exercises
Sep 3 – 11, 2026 (Day Order 1- 6)	15, 17,18	Clustering: K-Means Clustering, Agglomerative, DBSCAN Model evaluation: <ul style="list-style-type: none"> • Accuracy • Precision • Recall • F1-score Confusion matrix, Cross-validation	K1 – K6	3	1 - 5	Demo	Practical Exercises
Sep 15-17, 2026 (Day Order 1 - 3)	18	Compare accuracy	K1 – K6	2	1 - 5	Demo	Practical Exercises
Sep 18 –23, 2026	C.A. Test - II						
Sep 24 - 28, 2026 (Day 4 – 6)	16	Tokenization, Stopword removal, POS tagging	K1 – K6	1	1 - 5	Demo	Practical Exercises

Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	16	Word frequency analysis, Classifying the text	K1 – K6	3	1 - 5	Demo	Component II – 25 marks – Project submission Portions: Exercises 1 - 18
Oct 8 - 14, 2026 (Day Order 1 - 6)	20	Case study	K1 – K6	3	1 - 5	Demo	Practical Exercises
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	: Ms Madhura Prabha R [A], Ms Geethanjali S [B]
Course Title	: Critical Analysis on an Advanced Technology
Course Code	: 23CS/MC/CA51
Shift	: II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the core concepts of the chosen technology	K1
CO2	demonstrate and infer clear, precise ideas on the technology	K2
CO3	identify the significance, bias and applications of the technology	K3
CO4	critically analyse, argue and counter argue on the chosen technology	K4
CO5	formulate new ideas, opinions and create clear, grammatically correct, ethically sound, well-organised piece of writing	K5, K6

- Students will be formed into groups (Minimum – 2, Maximum - 3).
- Faculty supervisors will be allotted to each group.
- The groups will have to select a topic related to the Emerging/Advanced Trends and Technologies in the field of Computer Science.
- Students will explore and critically analyse the selected technology.

Each group has to give two presentations to their fellow classmates and their guide before the CA – I and one presentation and report submission before CA - II

The presentations or review should be on

- Discussing the recent advancements in that area of study (Abstract and Introduction)
- Complete review of the selected topic (Literature Survey)
- Critically analyse the pros and cons on the given topic with the Methods and Discussions (Comparative study)
- Students have to prepare the report in alignment with the presentations.
- Students have to approach the guide only during working hours.
- Adhere to the submission guidelines and timeline as specified.

Pattern of Evaluation

Jul 22 – Jul 27, 2026

Component I - Presentation / Review

(Includes abstract, introduction and literature survey)

Total Marks: 25

Assessment:

Abstract : 5 marks

Introduction : 5 marks

Literature survey : 10 marks

Viva / Presentation : 5 marks

Sep 24 - Sep 28, 2026

Component II - Papers / Projects

(Includes synopsis and detailed report with a proper conclusion in consultation with the guide)

Total Marks: 25

Assessment:

Synopsis/ Report: 10 marks

Conclusion / Results: 10 marks

Viva / Presentation: 5 marks

Format of the report**Abstract (Short description of the paper)**

- Describe what the technology is, why it is significant or interesting, and your conclusion.

Introduction

- What is the technology?

Literature review

- What is the current thinking, findings, and approaches on the technology?
- What is the significance of the technology?
- How do you plan to use the technology?

Methods / Approaches

- What is your opinion of the utility, relevance, challenges or quality of the technology you have selected? (Support with project/papers)

Results

- What are your conclusions?
- What do your conclusions mean?
- How do your results fit into a broader context?

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : Computer Science
Name/s of the Faculty : Ms. Geethanjali S. and Ms. X
Course Title : IMAGE EDITING AND ANIMATION
Course Code : 23CS/GE/IA22
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the concepts of multimedia elements	K1
CO2	demonstrate image editing and animation techniques	K2
CO3	implement digital content using photoshop and flash techniques	K3

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 Photoshop Workspace overview - Custom workspace - Cruising main menus – Panels – Layers - Organising files - Saving the files	K1-K2	2	1-2	Lecture / Demonstration	Lab Exercise

Jun 23 – July 1, 2026 (Day Order 1- 6)	1	Creating slideshow- Drawing tools - Painting – Selection tools - Lasso Options, Magic Wand, Quick - Selection	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
July 2 – July 8, 2026 (Day Order 1- 6)	1	Correction Tools - Heal and Spot Healing, Patch tool - Eyedropper tool – Brush - Clone Source - Rubber Stamp	K1-K2	2	1-2	Lecture / Demonstration	Lab Exercise
July 9 – 16, 2026 (Day Order 1- 6)	1	Text Tool- Smudge - Blur and Sharpen - Dodge - Burn - Blending modes - Transparency	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Creative Editing
July 17 – 24, 2026 (Day Order 1- 6)	1	Moving Path – Filters - Masking –Designing a Collage	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Creative Designing
July 25 – 28, 2026 (Day Order 1- 3)	3	3.1 Mini Project Mini Project using Photoshop	K1-K3	1	1-3	Lecture	Component I: Mini- Project using Photoshop (25 Marks)
July 29 – Aug 3, 2026	C.A. Test - I						
Aug 4 - 6, 2026 (Day Order 4 - 6)	2	2.1 Flash Flash work environment – Stage - Drawing tools and their modifiers –	K1-K2	1	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise

		Basic drawing techniques					
Aug 7 – 14, 2026 (Day Order 1- 6)	2	Animation – Timeline - Tweening and its types – The power of layers – Learning about symbols – Libraries	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
Aug 17 - 24, 2026 (Day Order 1- 6)	2	Onion - skinning – Text tool - Basic Action Scripting – Button behaviors – Navigation	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	2	Making presentation using Action Script - Symbols - Instances, Instance properties and methods	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Gamification of drawings
Sep 3 – 11, 2026 (Day Order 1- 6)	2	Dynamic input and text - Events – Button Event Handling	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
Sep 15-17, 2026 (Day Order 1 - 3)	2	Adding sound to movies – save files – Publishing movies	K1-K2	1	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
Sep 18 –23, 2026	C.A. Test - II						
Sep 24 - 28, 2026 (Day 4 – 6)	2	3.1 Mini Project Mini Project using Flash	K1-K2	1	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise / Visual Storytelling

Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	2	Mini Project using Flash	K1-K2	2	1-2	Lecture / Demonstration / Task-Based Learning	Lab Exercise
Oct 8 - 14, 2026 (Day Order 1 - 6)	3	Mini Project using Flash	K1-K3	2	1-3	Lecture	Component II: Mini- Project using Flash (25 Marks)
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. Swetha Margaret T A, Ms. Rajalakshmi, Ms. Kiruthika A, and Ms. Ramya S
Course Title : Human Computer Interaction
Course Code : 23ID/IC/HC55
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the fundamentals of HCI and interactive design concepts	K1
CO2	classify various types of interaction, user models and psychological factors	K2
CO3	apply design rules, user centered approaches and psychological factors to interaction design	K3
CO4	analyse physical designs, Participant observation and modelling interaction with relevance to user feedback system	K4
CO5	evaluate expressive interfaces and computer-mediated communication	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	CS 1.1 Introduction to Interaction Design - Introduction- Good and poor Design-What is Interaction Design? -What is involved in the process of Interaction Design?	K1-K4	3	1-4	Lecture / Presentation	Group discussion
	1	PY 1.2 The Human Understanding the human mind- computation: connectionism and symbol systems. Levels of information processing.	K1-K3	3	1-3	Lecture / Presentation	Group discussion
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	CS 1.1 Contd. The goals of interaction	K1-K4	3	1-4	Lecture / Presentation	Quiz

	1	<p>design-More on usability: Design and usability principles.</p> <p>PY</p> <p>1.2 Contd</p> <p>Memory- Atkinson and Shriffin model; structure of the working memory.</p> <p>1.4 Interaction Models</p> <p>Frameworks –</p> <p>Ergonomics: Bias - Arrangement of controls and displays, physical environment of interaction</p>	K1-K4	2	1-3	/Video	Discussion
			K1-K4	1	1-4	Lecture / Audio-visual Presentation	
July 2 – July 8, 2026 (Day Order 1- 6)	1	<p>CS</p> <p>1.3 The Computer</p> <p>Devices - Memory – Processing and Networks.</p>	K1-K3	2	1-3	Lecture / Presentation	Group Discussion
	4	<p>4.1 Interactive Design Basics</p> <p>Process – Scenarios</p>	K1-K5	1	1-5	Lecture / Presentation	Group Discussion

	1	<p>PY</p> <p>1.4 Contd</p> <p>Health issues, use of colours, and ergonomics and HCI. – Styles – Elements – Interactivity - Experience, engagement and fun understanding and designing experience and physical design & engagement</p>	K1-K4	3	1-4	Flipped Classroom	Debates/ Structured discussion
July 9 – 16, 2026 (Day Order 1- 6)	4	<p>CS</p> <p>4.1 Contd Navigation - Screen Design – Iteration and Prototyping.</p>	K1-K5	3	1-5	Lectures / Demo	Quiz
	2	<p>PY</p> <p>2.1 Understanding Users Cognition- Attention: visual and auditory attention. Parallel processing. Perception perceptual</p>	K1-K4	3	1-4	Lectures/ Demonstrations	Quiz

		grouping- figure and ground, similarity, proximity, continuity, symmetry, closure.					
July 17 – 24, 2026 (Day Order 1- 6)	4	CS 4.2. HCI in Software Process Software Life Cycle – Usability Engineering	K1-K5	3	1-5	Lectures/ Presentation	Discussion
	2	PY 2.3 Understanding how interfaces affect users Introduction- What are affective aspects? - Expressive Interfaces- User Frustration- Virtual characters: agents	K1-K4	3	1-4	Presentations/ case study analysis	Case studies
July 25 – 28, 2026 (Day Order 1- 3)	4	CS 4.2 Contd. – Prototyping in Practice – Design Rationale	K1-K5	2	1-5	Lectures/ Presentation	Quiz

		PY Revision		1			Component I – 25 Marks Video Presentation: Understanding Device Usage, Its impact, and Ergonomic guidelines
July 29 – Aug 3, 2026	C.A. Test – I						
Aug 4 - 6, 2026 (Day Order 4 - 6)	4	CS 4.3. Design Rules – Principles, Standards, Guidelines	K1-K5	1	1-5	Lectures/ Presentation	Quiz
	2	PY 2.2 Designing for collaboration and	K1-K4	2	1-4	Lectures/ Role Play	Discussion

		communication Introduction- Social mechanisms used in communication and Collaboration					
Aug 7 – 14, 2026 (Day Order 1- 6)	4	CS 4.3 Contd. Rules – Universal Design-User-centred approaches to interaction design	K1-K5	3	1-5	Lectures/ Presentation / Demo	Discussion
	2	PY 2.2 Contd Ethnographic studies of collaboration and Communication- Conceptual frameworks	K1-K4	3	1-4	Lecture	Discussion
Aug 17 - 24, 2026 (Day Order 1- 6)	5	CS CS 5.1 Modelling Interaction Descriptive models. Predictive model	K1-K5	3	1-5	Lecture / Presentation	Open book test

	3	<p>PY</p> <p>3.1. Types of Users</p> <p>Visualizers and verbalizers. High and low OSL. Variety and Novelty Seekers. Need for cognition. Designing for special populations-children, the elderly and the disabled.</p>	K1-K4	3	1-4	Lecture, Design thinking	Structured discussions
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	5	<p>CS</p> <p>5.1 Contd. A model continuum model</p>	K1-K5	3	1-5	Lecture / Presentation	Discussion
	3	<p>PY</p> <p>3.2 Observing users</p> <p>Introduction-Goals, questions and Paradigms-What and when to observe -How to observe- Participant</p>	K1-K4	3	1-4	Lecture/ Concept mapping	quiz

		observation and Ethnography					
Sep 3 – 11, 2026 (Day Order 1- 6)	5	CS 5.2 Contd. Meeting and decision support Systems-Shared applications and Artifacts	K1-K5	3	1-5	Lecture / Presentation / Demo	Comp II: 25 marks Presentation on Groupware
	3	PY 3.2 Contd Data collection- Indirect observation tracking users' activities- Analyzing, interpreting and presenting data	K1-K4	3	1-4	Lecture/ Demonstration	Discussion
Sep 15-17, 2026 (Day Order 1 - 3)	5	CS 5.2 Contd. -Frameworks for groupware- Implementing synchronous groupware.	K1-K5	2	1-5	Lecture / Presentation / Demo	Discussion

		PY – Revision		1			Quiz
Sep 18 –23, 2026	C.A. Test – II						
Sep 24 - 28, 2026 (Day 4 – 6)	5	CS 5.3 Contd. Virtual and augmented Reality	K1-K5	1	1-5	Lecture / Presentation / Demo	Quiz
	3	PY 3.3. Asking users and experts Introduction	K1-K4	2	1-4	Case study analysis	Group discussion
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	5	CS 5.3 Contd. Information and data visualization	K1-K5	3	1-5	Lecture / Presentation / Demo	Group discussion
	3	5.4. Hypertext, multimedia and the World Wide Web Introduction- Understanding-hypertext					

		PY 3.3 Contd Asking users: Interviews- Asking users: Questionnaires	K1-K4	3	1-4	Lecture/ Demonstration	Concept mapping
Oct 8 - 14, 2026 (Day Order 1 - 6)	5	CS 5.4 Contd. Finding Things- Web technology and issues - Static Web Content - Dynamic web content.	K1-K5	3	1-5	Lecture/ Demonstration	Discussion
	3	PY 3.3 Contd Asking users: Inspections - Asking users: Walkthroughs	K1-K4	3	1-4	Lecture/ Demonstration	Concept mapping
Oct 15 - 21, 2026 (Day Order 1- 4)	REVISION						