Maharashtra State Board of Technical Education, Mumbai
TEACHING PLAN (TP-TH)/ Course Information Sheet (CIS)

K-1

Academic Year: 2025-26 **Date:** 15/12/2025
Institute Name: K. K. Wagh Polytechnic, Nashik **Institute Code:** 0078
Program and Code: Computer Technology (CM) **Course Code &. Abbr.:** 316005 (CSS)
Course Name: Client Side Scripting (CSS) **Course Index:** CI403 **Learning Hrs:** 30
Class: TYCM-WIN **Semester:** 6th **Scheme:** K **Name of Faculty:** Ms. S.K.Mahajan

• Teaching-Learning & Assessment Scheme:

Course Title	Course Code / Abbr	Course Category	Learning Scheme					Credits	TH Paper Duration (Hrs.)	Assessment Scheme										
			Actual Contact Hrs/ Week			SLH	NLH			Theory				Based on LL & TSL Practical				Based on SL		Total Marks
			CL	TL	LL					FA TH	SA TH	Total		FA-PR		SA-PR		SLA		
										Max	Max	Max	Min	Max	Min	Max	Min	Max	Min	
Client Side Scripting	CSS 316005	AEC	2	-	4	-	6	3		-	-	-	-	25	10	25 @	10	-	-	50

Abbreviations: CL- Class Room Learning, TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS – Indian Knowledge System, SLA - Self Learning Assessment
Legends: @ Internal Assessment, # External Assessment, *# On Line Examination, @$ Internal Online Examination

• Course Outcomes (COs): Theory & Practical

By learning course Client Side Scripting (CSS-316005), the Third Year students will be able to:

CO No.	TLO No.	Course Outcomes (COs) / Theory Learning Outcomes (TLOs)
CO604.1 (CO1)	**Unit-I Fundamental of Client-Side Scripting**	
	TLO 1.1	Explain purpose of scripting language
	TLO 1.2	Differentiate between static and dynamic web pages
	TLO 1.3	Describe the evolution of scripting technologies
	TLO 1.4	Illustrate the AJAX architecture
	TLO 1.5	Create JSONobjects for accessing datain JavaScript program
	TLO 1.6	Explain feature of Django and Flask framework
CO604.2 (CO2)	**Unit-II Introduction to AngularJS**:	
	TLO 2.1	Describe the MVC Architecture
	TLO 2.2	State structure of the given AngularJS web page
	TLO 2.3	Describe the function of different controls to be used in web form
	TLO 2.4	Implement the filters and directives in given page.
	TLO 2.5	Write AngularJS program to handle the web page events.
CO604.3 (CO3)	**Unit III: Working with AngularJS**	
	TLO 3.1	Identify the table attributes to organize data in web page.
	TLO 3.2	Write CSS code for applying type of formatting in web page.
	TLO 3.3	Describe the use of controllers and its method.
	TLO 3.4	Write AngularJS program using filters.
	TLO 3.5	Write AngularJS program to show use of external files in controller.
CO604.4 (CO4)	**Unit IV: Introduction of React Framework**	
	TLO 4.1	State the features of React.
	TLO 4.2	Describe the life cycle of React.
	TLO 4.3	Explain the use of different components in a form.
	TLO 4.4	Implement the state of React Hooks.

CO504.5 (CO5)	Unit V: Working with React Framework	
	TLO 5.1	Write JavaScript to design a form to accept input values using React.
	TLO 5.2	Write event driven program for the given problem using React.
	TLO 5.3	Explain the use of list and keys in web pages.
	TLO 5.4	Write CSS for React application.

❖ Teaching Plan:

Unit No. (Allotted Hrs. & Marks)	COs & TLOs	Unit Title with Topic Details/Contents	Planned Dates (From-To & No. of Lectures)	Teaching Method/ Media	Sign and Remark for Completion
01 (05)	CO1 TLO-1.1 1.2 1.3 1.4 1.5 1.6	**Unit-I Fundamental of Client-Side Scripting** 1.1 Introduction to the Scripting: Basic web architecture, Role of the client and server, Static vs. dynamic web pages 1.2 History of Scripting Technologies: HTML as a foundation, Early use of inline scripting, Limitations of static HTML, JavaScript 1.3 Describe the evolution of scripting technologies	16/12/2025 To 20/12/2025 (02)	Chalk-Board, LCD+PPTs, Notepad,	
		1.4 1.4 Introduction to AJAX: AJAX Architecture, Actions 1.5 Basics of JSON: Objects, Scheme (Create JSON objects for accessing data in JavaScript program) 1.6 Webpage with Python: Django and Flask framework (Explain feature of Django and Flask	23/12/2025 To 30/12/2025 (03)		
02. (06)	CO2 TLO-2.1 2.2 2.3 2.4 2.5	**Unit-II Introduction to AngularJS**: 2.1 AngularJS Extends HTML, Expressions, MVC Architecture, Application in AngularJs, Variables Scope 2.2 AngularJS Forms: FORM tag, Form fields (Single line text field, password field, multiple line text area, radio buttons, and check boxes), Pull down menus (SELECT and OPTION tags), Buttons (submit, reset and generalized	06/01/2026 To 10/01/2026 (02)	Chalk-Board, LCD+PPTs, Notepad,	
		2.3 AngularJS Data Binding: Two-way Binding and ng-model directive	13/01/2026 To 17/01/2026 (02)		
		2.4 Filters: Built-In Filters, Custom Filter, Chaining Multiple Filters 2.5 AngularJS Events: ng-mousedown, ng-mouseup, ng-click	20/01/2026 To 24/01/2026 (02)		
03. (06)	CO3 TLO-3.1 3.2 3.3 3.4	**Unit III: Working with AngularJS** 3.1 AngularJS Tables: Display Data in a Table, Adding style to the Table data, orderBy Filter, uppercase Filter, $even and $odd	27/01/2026 To 31/01/2026 (02)	Chalk-Board, LCD+PPTs, Notepad, Notepad++ J.D.K 1.8	

	3.5	3.2 AngularJS Controllers: Initializing the Model with Controllers, Role of a Controller, Controllers & Modules 3.3 Business Logic, Presentation Logic and Formatting Data.	3/02/2025 To 07/02/2026 (02)		
		3.4 Attaching Properties and functions to scope, Nested Controllers, Using Filters in Controllers	10/02/2026 (01)		
		3..5Controllers in External Files	14/02/2026 (01)		
04. (06)	CO4 TLO-4.1 4.2 4.3 4.4	**Unit IV: Introduction of React Framework** 4.1 Introduction to React Framework, features, architecture & Form	17/02/2026 To 21/02/2026 (02)	Chalk-Board, LCD+PPTs, Notepad, Notepad++ Eclipse	
		4.2 Components: Functional components, Class components, Passing and using props	03/03/2026 To 07/03/2026 (02)		
		4.3 Lifecycle Mounting, Updating and Unmounting	10/03/2026 (01)		
		4.4 React Hooks - useState, use Effect, useContext	14/03/2026 (01)		
05. (07)	CO5 TLO-5.1 5.2 5.3	**Unit V: Working with React Framework** 5. 1 Event handling, Binding event handlers, Arrow functions vs. regular functions, 5.2 Working with Forms, Handling form, Submitting Forms, Form validation	17/03/2026 To 20/03/2026 (04)	Chalk-Board, LCD+PPTs, Notepad++ Eclipse	
	5.4	5.3 Lists and Keys - Rendering Lists, List with Key, Using map() to render lists of elements 5.4 Cascading Style Sheets- Different types of Style Sheets, Styling Libraries, Popular CSS frameworks (e.g., Bootstrap, Material-UI)	24/03/2026 To 28/03/2026 (03)		

- **Chapter wise CO-PO Mapping:**

Course Outcomes (COs)	Programme Outcomes (POs)						Programme Specific Outcomes PSOs		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PSO-1	PSO-2	PSO-3
CO1	1	-	1	1	-	-	1	-	-
CO2	2	2	2	2	1	-	2	-	3
CO3	2	2	3	3	2	-	-	2	-
CO4	2	2	2	3	2	-	-	-	3
CO5	2	2	3	3	2	-	2	-	-

Legends: - High:03, Medium:02, Low:01, --: No Mapping

- **POs and PSOs :**

Sr. No.	Programme Outcomes (POs)	Programme Specific Outcomes (PSOs)
1.	**PO-1** Basic and Discipline Specific Knowledge	**PSO1:** Apply acquired skills of programming, networking, hardware & database for computer based problem solving and software development. **PSO2:** Pursue higher studies in the field of Computer Science / Computer Engineering / Information Technology.
2.	**PO-2** Problem Analysis	
3.	**PO-3** Design/ Development of Solution	
4.	**PO-4** Engineering Tools	
5.	**PO-5** Engineering Practices for Society, Sustainability and Environment	
6.	**PO-6** Project Management	
7.	**PO-7** Life Long Learning	

- **Weightage to Learning Efforts & Assessment Purpose (Specification Table):**

Unit No.	Unit Title	Aligned COs	Learning Hours	R-Level	U-Level	A-Level	Total Marks
1	Fundamental of Client Side Scripting	CO1	5	2	4	4	**10**
2	Angular Basics	CO2	6	4	6	4	**14**
3	Working with AngularJS	CO3	6	2	4	6	**12**
4	Introduction of React Framework	CO4	6	2	4	4	**10**
5	Working with React Framework	CO5	7	0	2	2	**4**
		Total :	**30**	**10**	**20**	**20**	**50**

 # Learning Levels with reference to Bloom's Taxonomy: *R-Level: Remember, U-Level: Understand, A-Level: Apply*

- **Formative & Summative Assessment Criteria:**

  - **Practical Assessment:**

1. Formative Assessment (FA) of each practical/experiment will be performed progressively for 50 marks. The assessment will be performed based on the Regularity in Practical Performance, Tool Selection Ability, Use of Appropriate tool to perform the Identified tasks, Algorithm/Solution developed, Quality of output achieved, Answer to sample questions and Submit report in total time.
2. Final Term Work (FA-PR) of 25 marks is calculated based on scores in Formative Assessment for all practicals/experiments as:
   Term Work Marks = ((Sum of Total Marks Scored in FA * 25) / (Total of Number of Experiments)) *100
3. Self-learning Activities (SLA) includes Micro project / Assignment / other activities related to subject/course and it will be evaluated out of 25 Marks.
4. A Summative (comprehensive) Assessment (SA-PR) of Practical will be performed as End Semester Examination (ESE). The SA-PR will be for 25 Marks with MSBTE guidelines at the end of semester. The schedule of MSBTE Practical ESE will be display on Notice board prior to examination.

- **References:**

1. Suggested Books for Reference:

Sr. No	Author	Title of the Book	Publisher
1.	Thomas A. Powell	HTML & CSS: The Complete Reference	McGraw Hill Education; 5th edition (1 July 2017), ISBN-13: 978-0070701946
2.	Valeri Karpov, Diego Netto	Professional AngularJS (WROX)	Wiley (1 January 2015), ISBN-13: 978-8126556434
3.	Brad Green, Shyam Seshadri	AngularJS: Less Code, More Fun, And Enhanced Productivity With Structured Web Apps (Greyscale Indian Edition)	Shroff/O'Reilly; First Edition (1 January 2013), ISBN-13: 978-9351101260
4.	Mayur Patil	React.js For Beginners	Notion Press (11 January 2023), ISBN-13: 979-8889355106
5.	Alex Banks	Learning React: Modern Patterns for Developing React Apps	Shroff/O'Reilly; Second edition (16 July 2020), ISBN-13: 978-9385889158

2. Learning Websites URLs & Portals:

Sr. No	Website /Portal Link/URL	Description
1	https://www.tutorialspoint.com/angular/index.htm [16]	Designing web page using AngularJS. (All contents) [17]
2	https://www.w3schools.com/angular/ [18]	AngularJS Tutorial for beginners [19]
3	https://www.w3schools.com/REACT/DEFAULT.ASP [20]	React Tutorial for beginners [21]
4	https://www.tutorialspoint.com/reactjs/index.htm [22]	Designing web page using React. (All contents) [23]
5	https://javascript.info/ [24]	The Modern JavaScript Tutorial [25]
6	https://www.javascripttutorial.net/react-tutorial/ [26]	Providing React, AngularJS and Javascript contents. [27]
7	https://www.youtube.com/watch?v=NSWzs-Jt65w [28]	Angular JS for Beginners [29]

3. URLs of referred YouTube Videos:

Sr. No	URL/YouTube Link	Topic/ Description
1	https://www.youtube.com/watch?v=hdI2bqOjy3c	JavaScript Crash Course For Beginners
2	https://www.youtube.com/watch?v=lfmg-EJ8gm4	JavaScript Full Course for free
3	https://www.youtube.com/watch?v=0ik6X4DJKCc	**DOM Crash Course** (Essential Client-Side Concept)
4	https://www.youtube.com/watch?v=hBktBgdv2GE	Client-Side vs. Server-Side Scripting
5	https://www.youtube.com/watch?v=Oive66jrwBs	Async JavaScript & Fetch API

- **Tools to Use for Teaching-Learning, Assessment and Evaluation:**
- **Google Classroom –** It will be used to/for:
  - Organized Sharing of the Learning material such as PPTs, eNotes, Question Banks, Sample Solutions with students by class.
  - Conduction of the MCQ Tests and its evaluation.
  - Online sharing of Assignments and the Assessment of Assignments.
  - Monitor the students response and progress.
- **MKCL ERA LMS: –** The use of MKCL ERA LMS is/for:
  - Sharing by the Class, the Learning material such as PPTs, eNotes, Video Links by the Units
  - Sharing of Question Banks, Sample Solutions with students by class.
  - Conduct the Unit wise Quiz and perform evaluation of students.
  - Online Conduction of the Tests/Assignments and its assessment.
  - Using this detailed student's reports about his/her performance can be made available.

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