

Course Title	Internet and Web Programming						
Course Code	CSE534P						
						Category	Informal Lab
		L	T	P		PEC	NO
Contact Hrs./Week	2	0	1	CIA Marks		50	
Contact Hrs./Sem.	45	0	15	ESE Marks		50	
Credits.	2	0	1	ESE Exam Hours		2	
Course Description: It enables students to learn various techniques, tools and programming languages in order to create and maintain web pages.							
Course Objective: <ul style="list-style-type: none">● Explain tools for developing applications in Web programming.● Describe scripting languages – Java Script.● Under case study: Exposure to a web platform.							
Prerequisites: NIL							
Syllabus						Teaching Hours (45T)	
Unit 1 : Introduction Introduction to HTML5, HTML Versions, HTML5 Syntax, Structure of HTML5 Document, HTML5 Basic Elements, HTML5 Semantic Structure Elements, Hyperlinks, Images, Tables, Forms, iframes, Audio, Video, Map. CSS3: CSS Syntax and Styles, CSS selectors, understanding display, Position, and Document Flow, Font properties; text properties; list and table properties, Adding transitions and animations.						9T	

Text Book:

- T1. Randy Connolly, Ricardo Hoar, "Fundamentals of Web Development, 3rd Edition, Pearson Education India, 2021.
- T2. Wieruch, Robin. The Road to Learn React: Your Journey to Master Plain Yet Pragmatic React. Js. Germany: Independently Published, 2017.
- T3. Colin J. Ihrig, "Pro Node.js for Developers", APRESS, 2013.
- T4. Pro MERN Stack Full Stack Web App Development with Mongo, Express, React, and Node by Vasam Subramanian, Second Edition, ISBN-13 (pbk): 978-1-4842-4390-9.

References (Text/ Online Ref):

- R1. Nicholas C Zakas, "Professional JavaScript for Web Developers", 3rd Edition, Wrox/Wiley India, 2012. (ISBN:978-8126535088).
- R2. Jon Duckett, "JavaScript and JQuery: Interactive Front-End Web Development", Wiley Publishers, 2014.
- R3. Vipul A M, Prathomesh Sonpatki, "React JS by Example- Building Modern Web Application with React", Packt Publishing, 2019.
- R4. Herron, David. Node.js Web Development: Server-side Web Development Made Easy with Node 14 Using Practical Examples. United Kingdom: Packt Publishing, 2020.

Self-Study: -**Topics Contributing to Needs of**

Local: HTML, CSS	Employability: HTML, CSS	Professional Ethics:
Regional:	Skill Devops:	Human Values:
National:	Entrepreneurship:	Environment & Sustainability: HTML, CSS
Global: HTML, CSS		Gender Issues:

Unit 2: Java Script

Introduction, Java script function's, methods and objects, Decisions and loops, The Document Object Model (DOM); Modifying the DOM; Events and event handling; Using Event Listener Approach; Event Object; Event Delegation; Event Types; Event with Forms; Form Validation Example; Positioning elements; Moving elements; Element visibility; Changing colors and fonts; Dynamic content; Stacking elements; Locating the mouse cursor; Reacting to a mouse click;

9T

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Self-Study: -**Topics Contributing to Needs of**

Local: JavaScript	Employability: JavaScript	Professional Ethics:
Regional:	Skill Devops: JavaScript	Human Values:
National:	Entrepreneurship:	Environment & Sustainability:
Global: JavaScript		Gender Issues:

Unit 3: React JS

Introduction to ReactJS; Understand ReactJS Library & directory; JSX in Depth, Data Flow and Life Cycle Events; React Components; Types of Components; Build a simple React component; Component composition; Component styling; Add styles to your components; Component intercommunication; How to pass data from one component to another; Routing, Using Routing to create single page app; Hooks; States; Hooks vs States; Types of Hooks; Redux, Using Redux as state container for react apps; How to deploy ReactJS App

9T +

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Topics Contributing to Needs of

Local: ReactJS	Employability: ReactJS	Professional Ethics:
Regional:	Skill Devops: ReactJS	Human Values:
National:	Entrepreneurship:	Environment & Sustainability:
Global: ReactJS		Gender Issues:

Unit 4: Node.JS:

The Node Module System, The Node Programming Model, Events and Timers, The Command Line Interface, The File System, Streams, Binary Data, Executing Code, Network Programming, HTTP.

9H

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R4. Herron, David. Node.js Web Development: Server-side Web Development Made Easy with Node 14 Using Practical Examples. United Kingdom: Packt Publishing, 2020.

Topics Contributing to Needs of

Local: NodeJS	Employability:	Professional Ethics: Tester ethics
Reginal:	Skill Devops: NodeJS	Human Values:
National:	Entrepreneurship:	Environment & Sustainability:
Global: NodeJS		Gender Issues:

Unit 5: CASE STUDY

Integrating React.js, Node.js and MongoDB database to build a full-stack application; Deploying the application to a production environment using hosting platforms; Performance Optimization and Scaling Techniques; Extending JavaScript with jQuery; Ethics in Building web applications;

9H

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R4. Herron, David. Node.js Web Development: Server-side Web Development Made Easy with Node 14 Using Practical Examples. United Kingdom: Packt Publishing, 2020.

Topics Contributing to Needs of

Local: CASEStudy	Employability:	Professional Ethics:
Reginal:	Skill Devops: CASEStudy	Human Values:
National:	Entrepreneurship:	Environment & Sustainability: CASEStudy
Global: CASEStudy	DevOps	Gender Issues:

Course Outcomes (CO)	Knowledge Level	Units Mapping
CO1: Build the basic web page using HTML and CSS concepts	L3	U1
CO2: Experiment JavaScript's for designing web applications.	L3	U2
CO3: Make Use of React JS for building the effective web pages.	L3	U3
CO4: Develop a backend connection using Nodejs	L3	U4
CO5: Construct and host the web applications using hosting platforms.	L3	U5

Mapping with Program Outcomes (CO - PO/PSO)

CO	PO												PSO			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	3	2	1	-	3	-	-	1	2	1	1	-	1	2	1	
CO2	3	2	1	-	3	-	-	1	2	1	1	-	1	2	1	
CO3	3	3	3	2	3	-	-	1	2	1	1	-	1	2	1	
CO4	3	2	1	-	3	-	-	1	2	1	1	-	1	2	1	
CO5	3	3	3	3	3	-	-	1	2	1	1	-	1	2	1	

Course Designed: Dr Jyothi Mandala	
Course Reviewed:	
Revision as on Dated:	23-10-2024