Front-End Development Course Outline

Course Details

Course Type: Diploma

Course Duration: 6 months

Class Frequency: 3 classes/week, 2 hours each

Mode of Delivery: On-Campus

Course Objectives

- Equip learners with UI/UX tools like Photoshop and Figma.

- Develop proficiency in front-end technologies (HTML, CSS, JavaScript, React).

- Enable deployment of websites through modern hosting platforms.

Week-wise Course Plan

Week	Topics Covered	Learning Objectives	Assignments
1	Photoshop Basics	Understand image editing, UI layout, tools usage	Hands-on photo editing assignment
2	Figma Introduction	Interface, frames, components, design tools	Figma interface recreation assignment
3	Figma Components & Layouts	Design systems, auto layout, responsive frames	UI kit design task
4	Prototyping in Figma	Interactive flows, transitions, feedback tools	Clickable prototype of an app screen
5	Figma Advanced Techniques	Collaborations, versioning, exporting assets	Group project: UI/UX for a website
6	HTML Basics	Tags, structure, semantic elements	Build a basic webpage
7	HTML Tables, Lists,	Understand HTML tables, ordered/unordered lists, and	Create login and signup

Note: *This course outline and schedule are tentative and may be adjusted by the instructor depending on class progress and circumstances.*

	and Forms	forms structure and inputs	pages
8	HTML Multimedia and SEO Introduction	Embed videos, images, audio, iframes; learn basic on-page SEO techniques	Embed media and apply meta tags, alt attributes
9	CSS Basics	Selectors, properties, colors, fonts	Styling a personal webpage
10	CSS Box Model & Positioning	Margins, padding, width, height, positioning	Implementing to last assignment
11	CSS Animations & Transitions	Simple transitions and keyframe animations	Animate a button or banner
12	CSS Flexbox & Grid	Layout systems, responsiveness	Flex/Grid layout design challenge
13	Responsive Layout Design	Apply media queries, breakpoints, and mobile-first design principles	Create a fully responsive landing page using CSS
14	Bootstrap Basics	Bootstrap grid, components, utilities	Create a basic responsive layout using Bootstrap
15	Bootstrap Components & Layouts	Build forms, navbars, cards and modals using Bootstrap	Build a multi-section Bootstrap page
16	JavaScript Introduction	Variables, types, conditional statements	Simple calculator app
17	JavaScript Loops & Arrays	Loops, arrays, array methods	Dynamic list builder
18	JavaScript Functions	Function declarations, expressions, scope, hoisting	Reusable logic-based functions
19	JavaScript DOM Manipulation	DOM selection, modification, and event handling	Interactive to-do list
20	JavaScript Advanced Concepts	Closures, higher-order functions, callbacks, ES6 features	Refactor previous app using ES6+ syntax
21	JavaScript APIs &	Fetch API, promises,	Weather or quote

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	JSON	async/await, JSON manipulation	generator app
22	React Introduction	JSX, components, state	React counter component
23	React Props & Events	Props, event handlers	Reusable card component
24	React Hooks & Conditional Rendering	useState, useEffect, lifecycle, conditional rendering	Todo app with local storage
25	React Component Libraries & Tailwind CSS	Explore UI libraries (MUI, Chakra UI), TailwindCSS	Build a styled app layout using Tailwind CSS or a UI kit
26	React Routing	React Router basics, nested routes	Multi-page app using React Router
27	React Project Week	Mini project using all concepts	Submission of small React-based site
28	Git & GitHub Basics	Understand version control, Git commands, GitHub collaboration	Create and push a portfolio repo to GitHub
29	Web Hosting Basics	Domain, hosting types, file transfer basics	Compare hosting platforms (theory)
30	Deploying Static Sites	Netlify, GitHub Pages, FTP	Deploy a static HTML site
31	Deploying React Apps	React deployment via Netlify/Vercel	Deploy React project from Week 27
32	Final Project Planning & Dev	Final planning, structure checks, integration	Final project milestone & submission

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Assessment Structure

Component	Weightage
Class Participation	20%
Assignments	30%
Final Project / Exam	50%

Final Project

Students will design and develop a completely responsive website using React, deployed online, covering the full front-end stack. It will include UI/UX design (Figma), HTML/CSS/JS, React, and hosting.

Recommended Resources

These online resources are recommended for students to reinforce learning at home:

- [Photoshop CC Tutorials](#) – official Adobe beginner to advanced guides
- [Photoshop YouTube video tutorial](#)
- [Figma Learn](#) – design tool docs and beginner UX/UI courses
- [Figma Resource Library](#)
- [Visual Studio Code Docs](#) – IDE user guide
- [W3schools](#) – Tutorials for HTML, CSS, JS, and more (For basic users)
- [MDN Web Docs](#) – detailed HTML, CSS, and JS documentation (For advance users)
- [CodePen](#) – for trying out and viewing HTML/CSS/JS snippets
- [Git & GitHub](#) – Pro Git book + GitHub Learning Lab
- [React Documentation](#) – official guides and tutorials
- [Vite Guide](#) – getting started with modern build tools
- [Netlify Docs](#) – deploy static and React sites
- https://shortcuts.design/tools/toolspage-figma/
- https://www.figma.com/community/file/786708730400780813 -library of different sizes

Attendance Policy

- 80 % Attendance is mandatory for certification.

- Late submissions may result in grade deductions.

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