



# **Module 1 - Front-End Web Development**



## Overview

This module explores the world of web development, focusing on the technologies and techniques used to build modern, interactive, and user-friendly websites. Students will develop a comprehensive understanding of front-end development, which involves creating the visual and interactive components that users interact with through web browsers.

The module begins with an introduction to the fundamental building blocks of the web; HTML, CSS, and JavaScript. Students will learn how to structure content using HTML, style and layout web pages with CSS, and add interactivity and dynamic behaviour using JavaScript. They will explore the Document Object Model (DOM) and its manipulation techniques, enabling them to create dynamic and responsive user interfaces. Furthermore, the module covers modern front-end frameworks and libraries. Students will learn how to develop reusable and modular components, manage state and data flow, and build single-page applications (SPAs) with efficient rendering and performance optimisations.

The module also encompasses topics like responsive web design, ensuring that web applications and websites adapt seamlessly to different devices and screen sizes. Students will learn about popular front-end frameworks and techniques for building accessible and inclusive user interfaces.

By the end of this module, students will have acquired the skills and knowledge necessary to design and develop engaging, responsive, and accessible web applications and websites, leveraging the latest front-end technologies and best practices.

<b>Module Code</b>	SD-M1
<b>Duration</b>	7 weeks
<b>Prerequisites</b>	Foundational Module
<b>Module Content</b>	<ul style="list-style-type: none"> <li>• Web server/client architecture</li> <li>• HTML and CSS</li> <li>• JavaScript</li> <li>• Front-end frameworks</li> </ul>

	<ul style="list-style-type: none"> <li>• Version control</li> <li>• Prototyping</li> <li>• UX/UI principals</li> <li>• Responsive web design</li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>• Practical exercises (Formative)</li> <li>• Core Assignment (Summative)</li> </ul>
<b>Lecture Time</b>	09:00 – 11:30
<b>Learning Material</b>	<ul style="list-style-type: none"> <li>• Lecture slides</li> <li>• Readings</li> <li>• Lesson recordings</li> <li>• Source code</li> </ul>

**\*Disclaimer:** The content of this document is subject to change should the need arise.