

<b>COURSE TITLE</b>	<b>FINTECH USER INTERFACE DESIGN-II</b>
<b>COURSE CODE</b>	<b>05FN0204</b>
<b>COURSE CREDITS</b>	<b>4</b>

**Objective:**

- 1 To impart a thorough understanding of Advance HTML & CSS
- 2 To impart a thorough understanding of JavaScript & Bootstrap 5 (Framework)
- 3 To design client-side form validation using regular expressions and Bootstrap styling.
- 4 To develop a countdown timer for an event with customizable options using JavaScript and Bootstrap styling.
- 5 To create responsive, dynamic, and visually appealing web applications, paving the way for a successful career in web development.

**Course Outcomes:** After completion of this course, student will be able to:

- 1 Students can acquire mastery in advanced HTML and CSS by comprehensively understanding HTML structure and outcomes.
- 2 Students can leverage CSS features such as combinators, pseudo-classes, and pseudo-elements to enhance styling capabilities.
- 3 Students can delve into web development fundamentals, comparing Bootstrap 4 and 5, and exploring components like Flex, Off Canvas, and Toast.
- 4 Students can work with JSON data and get introduced to modern JavaScript frameworks like ReactJS and Angular.
- 5 Students have the opportunity to enhance their skills in advanced HTML, CSS, and web development fundamentals.

**Pre-requisite of course:**NA

**Teaching and Examination Scheme**

<b>Theory Hours</b>	<b>Tutorial Hours</b>	<b>Practical Hours</b>	<b>ESE</b>	<b>IA</b>	<b>CSE</b>	<b>Viva</b>	<b>Term Work</b>
3	0	2	50	30	20	25	25
<b>Contents : Unit</b>	<b>Topics</b>						<b>Contact Hours</b>
1	<b>Advanced HTML</b> HTML Summary / Outcome of the Paper. HTML vs XHTML & Style-Guide. HTML Responsive & Entities., Char Sets & Input Types and Input Attributes. Form Attributes & Elements, HTML Forms.						11

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
2	<b>Advanced CSS</b> CSS Combinator & Pseudo-class & Pseudo-elements., CSS Opacity, Attribute Selector & Counters., The !important Rule., Animations & Transitions. Shadows & Text Effects. , 2D & 3D Transforms. CSS Media Query & Flexbox.	11
3	<b>JavaScript Fundamentals</b> JS Introduction & Versions. Syntax, Statements, Variables, Operators., JS Data Types, Events. JS Objects & Classes., JS Functions. JS Async & Await.	11
4	<b>JavaScript DOM &amp; Frameworks</b> JS HTML DOM. JS JSON. Introduction to ReactJS/Angular., Bootstrap 5: o Introduction & Bootstrap 4 vs 5. o Flex, Off-Canvas, Toast. o Content to be Covered.	12
<b>Total Hours</b>		<b>45</b>

#### Suggested List of Experiments:

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<b>Unit 1</b> 1. Create a responsive navigation menu using only CSS. 2. Build a CSS grid layout for a blog page. 3. Design and style a form using CSS to improve user experience. 4. Create a dynamic todo list application using JavaScript and Bootstrap. 5. Build a responsive image gallery with filtering and sorting options using Bootstrap and JavaScript. 6. Implement client-side form validation using regular expressions and Bootstrap styling. 7. Implement a modal window that displays dynamic content fetched from an API using JavaScript and Bootstrap. 8. Build a draggable and resizable component using JavaScript libraries like interact.js and Bootstrap. 9. Develop a countdown timer for an event with customizable options using JavaScript and Bootstrap styling. 10. Create a responsive login/signup form with client-side validation and error handling using Bootstrap and JavaScript.	15

### Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
2	<b>Unit 2</b> 1. Create a responsive image carousel using Bootstrap and custom CSS. 2. Build a responsive pricing table with hover effects using HTML, CSS, and Bootstrap. 3. Design a multi-step form with progress indicators using HTML, CSS, and JavaScript. 4. Create a dynamic weather application that fetches data from an API and displays it using JavaScript and Bootstrap. 5. Build a sticky footer that stays at the bottom of the page using only CSS. 6. Implement a lightbox feature for images using JavaScript and CSS. 7. Develop a search bar with autocomplete functionality using JavaScript and Bootstrap. 8. Create a responsive portfolio page with a grid layout for showcasing projects using HTML, CSS, and Bootstrap. 9. Build a contact form with Google Maps integration using JavaScript and Bootstrap. 10. Design and implement a tabbed navigation system with content switching using JavaScript and CSS.	15
<b>Total Hours</b>		<b>30</b>

### Textbook :

- 1 Web Development and Design Foundations with HTML5, Terry Felke-Morris, Pearson, 2020

### References:

- 1 Designing Interfaces: Patterns for Effective Interaction Design, Designing Interfaces: Patterns for Effective Interaction Design, Jenifer Tidwell, O'Reilly Media, 2019
- 2 The Elements of User Experience: User-Centered Design for the Web and Beyond, The Elements of User Experience: User-Centered Design for the Web and Beyond, Jesse James Garrett, New Riders, 2010
- 3 The Design of Everyday Things, The Design of Everyday Things, Don Norman, Basic Books, 2013
- 4 Responsive Web Design, Responsive Web Design, Ethan Marcotte, , A Book Apart, 2014

### Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
20.00	30.00	25.00	15.00	10.00	0.00

### Instructional Method:

- 1 Board Work

**Instructional Method:**

- 2 PPT
- 3 Demo

**Supplementary Resources:**

- 1 [https://www.uxnordic.com/?gad\\_source=1&gclid=EAIaIQobChMIzICgvbbMhgMVk8VMAh27EAcUEAAYASAAEgKEbPD\\_BwE](https://www.uxnordic.com/?gad_source=1&gclid=EAIaIQobChMIzICgvbbMhgMVk8VMAh27EAcUEAAYASAAEgKEbPD_BwE)
- 2 <https://developer.mozilla.org/en-US/>
- 3 <https://www.w3schools.com/>