Lecture # 0

Web Technologies

Credit Hours: 3(2, 1)

Course Instructor: **MUSTAFA ALI BAMBOAT**

Course Learning Outcomes (CLOs)

Upon completion of the course, students will be able to:

Course Learning Outcomes (CLO)

Sr.#	Unit #	Course Learning Outcomes	Blooms Taxonomy Learning Level	SO
CLO's for Theory				
CLO-1	1-2	Classify web architectures and related applications.	*Understanding*	1
CLO-2	3-5	Demonstrate the capabilities for developing professional front-end using client-side technologies.	*Applying*	2-4
CLO-3	6	Illustrate the concepts of server-side technologies for secure database interactions.	*Applying*	2-4
CLO's for Lab				
CLO-4	3-6	Apply the concepts of markup & scripting languages and client-side technologies.	*Applying*	2-4
CLO-5	2-6	Develop dynamic applications using current industrial practices.	*Creating*	2-5

Major Topics

Unit wise Major Topics:

Unit	Topic	No. of Teaching Hours
1.	Web Development: Overview, Platforms, Terminologies, Standards & Constraints, Applications Categories, and Development Environments.	1
2.	Tiered Web Architecture: One-Tier, Two-Tier, and N-Tier.	1
3.	Markup Languages: HTML, HTML5, and XHTML.	4
4.	Styling: Cascading Style Sheets (CSS), CSS3, Bootstrap Framework, CSS Extensions, and SASS.	7
5.	Client-Side Scripting (JavaScript): DOM, Data Validation, Animation, Event Handling, Regular Expressions.	6
6.	Server-Side Programming: Introduction to PHP & Laravel; Database Utilization & Interaction; CRUD Operations (Laravel); XML, AJAX, JSON; Web APIs Applications; Programming Via: Platform-Specific APIs & Platform Constraints; and SQL Injections.	11
Total Contact Hours		**30**

Course Literature

Text and Reference Books

Textbooks:
1. Web Design Playground: HTML & CSS the Interactive Way, Paul McFedries, Manning, 2019.
2. Beginning PHP and MySQL: From Novice to Professional, Frank M. Kromann, Apress, 2018.
3. Laravel Up and Running, A Framework for Building Modern PHP Apps, Matt. Stauffer, Oreilly, 2019.

Reference Books:
1. Web Engineering, Sahil Rai, Kuk University Notes, 2020.
2. Web Programming with HTML5, CSS, and JavaScript, John Dean, Jones & Bartlett Learning 2018.