Course Syllabus for CSE-326

1. **Title:** Internet Programming (Sessional)

2. **Credits:** 1.5 (3 hours of lab work per week)   **Session:** 2019-20

3. **Course Teacher:** Dr. Md. Iqbal Hasan Sarker, Assistant Professor, Dept. of CSE, CUET
   Omar Sharif, Lecturer, Dept. of CSE, CUET
   Md. Atiqul Islam Rizvi, Lecturer, Dept. of CSE, CUET

4. **Learning Resources:**
   Reference: Various online resources

5. **Catalog Description:** Sessional based on the following topics:

   Introduction: What is website, Types of website, Technology used in web site development, Different between web design and development, Domain and Hosting.

   HTML: HTML Basics, Tags, use of tag, Properties and Element, Implementation of html tag, properties and element., Setting Background and Text Colors, Adding Local and Remote Links, Adding Internal Links with the Named Anchor Tag, Linking and Embedding Graphics, Creating Lists and Nested Lists, Creating and Modifying Tables.

   XML and XHTML: XML basics; XHTML: Document Structure, Basic Tags, Text Formatting, Character Entities, Lists, Links, Images, Color, Tables, Forms, Image Maps, Meta tags, Framesets.

   CSS: CSS Introduction, CSS Syntax, Classification, Font, Text Color & background, Padding, Border, Margin, Positioning.

   JavaScript: Introduction, Control Structures, Functions, Arrays, and Objects, Web APIs with JavaScript (example: Google Ajax API), jQuery Basics, Using selectors and events.

   Server-Side Technology: LAMP, Web application frameworks (example: Silverlight, Adobe Flex, Laravel), Web 2.0 and Web APIs, MVC framework.

   PHP: Basics of About PHP, PHP Installation, PHP Syntax & PHP Variable, PHP Variable, PHP show/print output, PHP Operators, if (...else) statement, Switch statements, for statement, while statement, Do While statement, Arrays, File, File Upload, Cookies, Session, PHP Date, PHP Socketing.

   Database: Database Basics, Types of Database, Usage of Database, Database Schema.

MySQL Database: MySQL Database Basics, Features of MySQL Database, Database create and use, Table data type, create table and view, Insert, Update, delete, Logical Query, Constraint, Joining, Aggregate Functions, Have and group by clause, Complex Query of PHP and MySQL.

PHP and MySQL: Host Connection, Database Connection, inserting into table, Update Data from Table, View Data from Table, Delete Data from Table, Joining Data, Report Generation, Report Print, Session Authorization, log in and Log out, Hashing Password.

E-commerce: Introduction to E-business, Future of E-commerce

6. **Prerequisite(s):**
   - Programming Language Concepts
   - Database Management Systems

7. **Course Designation as Elective or Required:** Required

8. **Course Objectives:**
   (a) Familiarization with various web development concepts such as HTML, XML, CSS, JavaScript, MySQL Database, etc.
   (b) To learn and follow the analysis and design procedure of websites/android apps.
   (c) To implement project, suitable for and meets the requirements of the end users.

9. **Student Learning Outcomes:** After successfully completing the course with a grade of C (2.25/4.0) or better, the student should be able to do the following

No	Course Learning Outcomes (CLO)	POs#
1	Familiarization with various web development concepts	1
2	To learn and follow the analysis and design procedure of websites/android apps	3
3	To implement project, suitable for and meets the requirements of the end users	3

10. **Program Outcomes Addressed: 1 and 3**

CLO#	Program Outcome (PO)	PO#
1	Engineering Knowledge	1
2, 3	Design/Development of Solutions	3

CLO-PO Mapping

No	Course Learning Outcomes(CLOs)	PO1	PO2	PO3	PO4	PO5	PO6	PO07	PO08	PO09	PO10	PO11	PO12
1	Familiarization with various web development concepts	✕											
2	To learn and follow the analysis and design procedure of websites/android apps			✕									
3	To implement project, suitable for and meets the requirements of the end users			✕									

11. Assessment Strategy: According to the Undergraduate Academic Rule of the University

Lesson Plan

with

Lesson Learning Outcomes (LLOs)

Week	Topic	Lesson Learning Outcomes (at the end of the lesson students will be able to)	Teaching-Learning Methodology	Assessment Method
Week - 01	Course overview, Introduction to HTML, XML, CSS, JavaScript, MySQL Database	• Identify the problem domain to develop the project • Collect required information for the project	• Lecture on theoretical background and design principle	
Week - 02	Project topic selection	• Get idea about various projects • Know about websites/android applications • Select topics that is suitable for end-users	• Hands on demonstration on implementation	
Week - 03	Design and analysis of the projects	• Select appropriate tools / framework / environment for implementing the project	• Hands on demonstration on implementation	
Week - 04	Evaluating initial feasibility of the project	• Find out the limitations/bugs in the project • Improve project quality	• Hands on demonstration on implementation	
Week - 05	Monitoring project progress (front-end)	• Analyze the user requirements • Design the interfaces to reflect those requirements	• Hands on demonstration on implementation	

Week - 06	Monitoring project progress (back-end)	• Identify the relational dependencies between entities and perform required normalization • Design the database	• Hands on demonstration on implementation	
Week - 07	Monitoring project progress (front-end)	• Analyze the user requirements further based on feedbacks • Improve the quality of interface accordingly	• Hands on demonstration on implementation	
Week - 08	Monitoring project progress (back-end)	• Implement adjustments based on the feedbacks	• Hands on demonstration on implementation	
Week - 09	Monitoring project progress (frontend-backend integration)	• Integrate the front-end and back-end design • Analyze integration errors and resolve accordingly	• Hands on demonstration on implementation	
Week - 10	Improving User Experience (UX/UI)	• Improve the overall user experience • Modify the implementation upon the feedbacks received	• Hands on demonstration on implementation	
Week - 11	Final Project Submission			
Week - 12	Presentation and evaluation of the project			
Week - 13	Viva-voce			