

Web Technologies

Course Plan

Course no.: CSC-353

Credit hours: 3

Faculty: Milan Lamichhane

Class start date: Aug 10, 2015

Class end date: <TBD>

Total duration: 15 weeks

Course Detail:

Week	Unit	Estimated Hours
1	Introduction (Review of Web Technologies) <ul style="list-style-type: none">• Introduction to Networking• Internet and its evolution• Connecting to the Internet• Client/Server Technology• Internet as a Client/Server Technology• WWW• Web Page• Web Site• URI• Web Server• Web Client• Web Browser• SMTP• POP	3
2	Introduction (Review of HTML) <ul style="list-style-type: none">• Markup Languages• Introduction to HTML• Elements and Attributes• Different Sections of HTML Document<ul style="list-style-type: none">○ Comments○ Common Tags for○ Heading○ Paragraphs○ Horizontal Lines○ Line Breaks○ Formatting	3

3	Introduction (Review of HTML) <ul style="list-style-type: none"> • <i>Different Sections of HTML Document (contd..)</i> <ul style="list-style-type: none"> ○ <i>Links</i> ○ <i>Images</i> ○ <i>Tables</i> ○ <i>Lists</i> ○ <i>Forms</i> • <i>Using Colors</i> • <i>Special Characters</i> • <i>Head</i> • <i>Meta</i> • <i>Div Tags</i> • <i>Events</i> Lab 1: HTML elements	4 + 2
4	Introduction (Review of CSS) <ul style="list-style-type: none"> • <i>Introduction</i> • <i>Syntax</i> • <i>Inserting CSS (External, Internal and Inline)</i> • <i>ID and Class Selectors</i> • <i>Grouping and Nesting Selectors</i> • <i>Pseudo Classes and Elements</i> Lab 2: CSS implementation	4 + 2
5	Introduction (Client-side Programming with JavaScript) <ul style="list-style-type: none"> • <i>Introduction</i> • <i>Writing Comments</i> • <i>Variables</i> • <i>Operators</i> • <i>Statements</i> • <i>Alert</i> • <i>Confirm and Prompt Boxes</i> • <i>Functions</i> Lab 3: Working with JavaScript	4 + 2
6	Introduction (JavaScript contd....) <ul style="list-style-type: none"> • <i>Event and Error Handling</i> • <i>Built-in Classes</i> • <i>Form Validation</i> • <i>Cookies</i> Lab 4: More with JavaScript	4 + 2
7	Issues of Web Technology <ul style="list-style-type: none"> • <i>Architectural issues of Web Layer</i> • <i>HTTP</i> • <i>FTP</i> • <i>Tier Technology</i> <ul style="list-style-type: none"> • <i>2-Tier</i> • <i>3-Tier</i> • <i>n-Tier</i> 	4 + 2

	Lab 5: TBD	
8	The Client Tier <ul style="list-style-type: none"> • <i>Introduction to XML</i> • <i>Elements and Attributes</i> • <i>Rules for Writing XML</i> • <i>Namespace</i> • <i>Schema</i> • <i>Simple and Complex Types</i> • <i>XSD attributes</i> • <i>Default and Fixed Values</i> Lab 6: Writing XML	4 + 2
9	The Client Tier (contd...) <ul style="list-style-type: none"> • <i>Facets</i> • <i>Use of Patterns</i> • <i>Order Indicators (All, Choice, Sequences)</i> • <i>Occurrence Indicators (MaxOccurs, MinOccurs)</i> • <i>DTD</i> <ul style="list-style-type: none"> ○ <i>Internal Declaration</i> ○ <i>Private External Declaration</i> ○ <i>Public External Declaration</i> ○ <i>Defining Elements and Attributes</i> • <i>XSL/XSLT</i> • <i>XPath</i> • <i>XQuery</i> • <i>SAX</i> • <i>DOM</i> Lab 7: Writing XML	4+2
10	The Server Tier <ul style="list-style-type: none"> • <i>Web Server Concept</i> • <i>Creating Dynamic content</i> • <i>Sessions and State</i> • <i>Error Handling</i> • <i>Architecting Web Application</i> • <i>Using Tag Libraries</i> • <i>Writing Tag Libraries</i> Lab 8: TBD	4+2
11	The Server Tier (contd...) <ul style="list-style-type: none"> • <i>Server Side Scripting with ASP.NET</i> Lab 9: Building web application with ASP.NET	4 + 2
12	The Server Tier (contd...) <ul style="list-style-type: none"> • <i>Server Side Scripting with ASP.NET</i> Lab 10: Building web application with ASP.NET	4 + 2
13	The Server Tier (contd...) <ul style="list-style-type: none"> • <i>Server Side Scripting with ASP.NET</i> Lab 11: Building web application with ASP.NET	4 + 2
14	Advanced Server Side Issues <ul style="list-style-type: none"> • <i>Database Connectivity</i> 	4 + 2

	<ul style="list-style-type: none"> • <i>Creating an SQL Statement</i> • <i>Authentication</i> • <i>Anonymous Access</i> • <i>Authentication by IP address and Domain</i> • <i>Integrated Windows Authentication</i> • <i>Cookies</i> • <i>File Handling</i> • <i>Form Handling</i> Lab 12: TBD	
15	Revision Q & A session	6

Reference Book

- *Matt J. Crouch, ASP.NET and VB.NET Web Programming, Pearson Education Asia, 2002*
- *Rahul Banerjee, Internetworking Technologies, Prentice-Hall of India Limited, Fourth Edition, 2000*

Assignments

There will be at least one assignment after the completion of each unit.

Class Test/Quizzes

There will be surprise quizzes and lab tests during the semester. If any class test is scheduled, prior notice will be provided to the students.

Mid-term and Pre-board

Both of these exams will be undertaken as per the schedule provided by the collage management.

Final Project

This will be a substitute of final practical exam. Each student needs to come up with his/her own idea to implement different web technologies to build a simple web application. They need to provide the detail of the web application. Once the idea is approved, a full functional web application should be built for the evaluation purpose.

Marks distribution

Tentative mark distribution is as follow. However, this distribution is subjected to change with prior notification.

Internal	Final Project (idea pitch)	5	
	Final Project (Implementation)	15	
	Attendance	5	
	Assessments (mid-term exam, pre-board exam)	10	
	Class Participants	Assignments	5
		Quiz/Class test	
Final Exam			60
Total			100