

	Department/ Programme: COMPUTER SCIENCE ND	Course Code: CPT 214		Credit Hours: 4 hours/week
	Subject/Course: WEB TECHNOLOGY			Theoretical: 1hours/week
	Year: 2 Semester One	Pre-requisite:		Practical: 3 hours /week

GENERAL OBJECTIVES: On completion of this course the student should be able to:

- 1.0 Know the fundamental concepts of WWW.**
- 2.0 Understand the concepts of HTML, XHTML, CSS JAVA SCRIPTS, XML and other web technologies**
- 3.0 Get familiar with W3C standards and recommendations**
- 4.0 Understand creation, customization of Hypertext mark-up language HTML**
- 5.0 Create unordered lists, customization, alignment, insertion of graphics, links...**
- 6.0 Understand the relationship among the above web technologies. (New Trends in Web Technology)**
- 6.0 Configuring Web and FTP Sites**
- 7.0 Installing Internet Information Services.**
- 8.0 Installing and Configuring Web Applications.**
- 9.0 Implementing Security on a Web Server.**
- 10.0 Know Web Development Tools.**

	Course: Web technologies	Course Code: CPT 214			Contact Hours: 4 hours/week	
					Theoretical: 1 hours/week	
	Year: 2	Semester:2	Pre-requisite: COM122		Practical: 3 hours /week	
	Theoretical Content			Practical Content		
General Objective 1:						
Week	Specific Learning Outcomes	Teacher's activities	Resources	Specific Learning Outcomes	Teacher's activities	Resources
1	<p>The student will be able to:</p> <p>Understand Internet concept and Web (WWW)</p> <p>Define WWW, outline the anatomy of WWW connection, introduce students into hypertext</p> <p>How Universal Resource Location (URL) works.</p>	<p>Define internet.</p> <p>Define world wide web (WWW)</p> <p>Outline the history of WWW.</p> <p>Explain the Anatomy of a Web connection.</p> <p>Explain how a web page works.</p> <p>Explain how mark-up languages work</p> <p>Explain how hypertext works.</p> <p>Explain how URL works.</p>	<p>Lab connected to the internet..</p> <p>Web application packages such as Dream weaver, MS front page</p> <p>Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML</p>	<p>Ability to browse the internet.</p> <p>Apply different URL and to examine a very basic HTML file written which when manifested give rise to a web page.</p>	<p>Browse the net</p> <p>Apply different URLs</p> <p>Examine simple web page written in HTML</p>	<p>Networked PC</p> <p>Lab connected to the internet..</p> <p>Web application packages such as Dream weaver, MS front page</p> <p>Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML</p>

	General Objectives 2					
2	Understand the concepts of HTML, XHTML, CSS, JAVA SCRIPTS, XML as related to the internet.	Define and explain the concepts listed in the learning outcomes.	PC connected to OHP Power point presentation of Lecture notes. On line lecture notes Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML	Ability to differentiate the learning outcomes	To help student differentiate the learning outcomes	Networked PC Lab connected to the internet.. Web application packages such as Dream weaver, MS front page Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML

	General Objective 3					
3	Appreciate the W3C standards and recommendations, Its mission. Membership, its process, its working.	Tell the history of W3C, show W3C web pages of HTML. XHTML, CSS	PC connected to the internet, Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML	Ability to differentiate the learning outcomes	To assist the student to: Connect to the internet. Search for the files described in the learning outcome	Networked PC Lab connected to the internet.. Web application packages such as Dream weaver, MS front page Sample files of HTML, XHTML, JAVA, CSS SCRIPTS and XML
Week/s	General Objective 4: Understand creation and customizing in HTML					
4	Understand Functions of HTML. Planning of an HTML document. Writing of an HTML document. Previewing and editing of a web page. Creating links to other web pages. Printing of an HTML document.	State functions of HTML. Hyperlinks, graphics, . Plan and write a simple HTML document. Preview and edit a web page. Create links to other web pages. Print an HTML document.	P.C connected to internet Front page, Dreaweaver, HTML software	To write a simple HTML based document To Create a simple web page. To be able to use various HTML tags to enhance	Assists students in performing their Lab work	Networked PC Lab connected to the internet.. Web application packages such as Dream weaver, MS front page

		HTML document.		quality and appearance of a web page.		
	General Objective 5					
5	<p>Understand how to: Create ordered/unordered list in HTML document.</p> <p>Customize font and Controlling font selection</p> <p>Align text in HTML document.</p> <p>Insert graphic insertion and specify graphic size.</p> <p>Link graphics in HTML document</p>	<p>Create ordered list in HTML document.</p> <p>Create unordered list in HTML document.</p> <p>Control font selection in HTML document.</p> <p>Customize fonts in HTML document.</p> <p>Align text in HTML document</p>	<p>P.C connected to internet</p> <p>Front page, Dreawever,</p> <p>HTML software</p>	<p>To: Create ordered/unordered list in HTML document.</p> <p>Customize font and Controlling font selection</p> <p>Align text in HTML document.</p> <p>Insert graphic insertion and specify graphic size.</p> <p>Link graphics in HTML document</p>	Assists students in performing their Lab work	<p>Networked PC Lab connected to the internet..</p> <p>Web application packages such as Dream weaver, MS front page</p>
6	Understand the relationships among the various technologies	<p>To: Write very simple Java files, compile, save and run it.</p> <p>Write very simple Java Script file, compile, save and run it.</p>	<p>P.C connected to internet</p> <p>Java compiler</p> <p>Java script compiler</p>	Understand the writing of simple java script.	Assists students in performing their Lab work	<p>P.C connected to internet</p> <p>Java compiler</p> <p>Java script compiler</p>

7	Understand how to: Insert graphics and image map in HTML document. Add background image in HTML document. Introduce multimedia options.	To: Insert graphics and specify graphic size. Link graphics in HTML document. Insert on image map in HTML document. Add background image in HTML document. Introduce sound and video files.	P.C connected to internet. Any HTML software.	Ability to : Add graphics, images and introduction of multimedia into HTML documents.	Assists students in performing their Lab work	Networked PC Lab connected to the internet.. Web application packages such as Dream weaver, MS front page
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Objectives 6 :- Configuring Web and FTP Sites Web and FTP Sites

Week	Specific Learning Outcome:	Teachers Activities	Resources	Specific Learning Outcome:	Teachers Activities	Resources
8	To be able to: - Understand the creation, and configuration of web sites. - Know how to create Virtual Directories - Know how to create custom error Messages for users..	To Explain: - How to create and configure additional sites. - How to create custom Error messages for users. Describe how to create Virtual Directories	Ability to project the Desktop to all students. A comprehensive workbook of IIS.	To be able to : - Know how to create and configuring sites. - Know how to create virtual directories Redirecting Requests. - Create custom Error Messages for users .	- Show the student How to create and configure sites. - Demonstrate to the student how to create custom Error message for users, virtual directories redirecting requests.	Networked Personal computer. Router device A comprehensive workbook of computer. Internet Connection

Objectives 7 Installing Internet Information Services 5.0

Week	Specific Learning Outcome	Teachers Activities	Resources	Specific Learning Outcome	Teachers Activities	Resources
9	To be able to: - Introduce and Identify Internet Information Services.	To Explain : - What Internet Information Services is? - The steps of installing	Ability to project the Desktop to all students.	To be able to : - How to install and update the Internet	- Demonist rate to the student how to install and	Networked Personal computer. Router device

	<ul style="list-style-type: none"> - Understand installing, updating IIS. - Understand how to use Online identify Documentation. 	<ul style="list-style-type: none"> and updating IIS. - The using of Online documentation 	A comprehensive workbook of IIS.	Information Services. - Know how to use Online Documentation	<ul style="list-style-type: none"> how to update IIS. - Show how to use Online Documentati on 	A comprehensive workbook of computer. Internet Connection
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Objectives :- Administering Web and FTP Sites

Week	Specific Learning Outcome	Teachers Activities	Resources	Specific Learning Outcome	Teachers Activities	Resources
10	To Understand: <ul style="list-style-type: none"> - Remote website administration and management process. - Metabase management. - Web Sites administration, Using Built-In Scripts and WebDAV. - The steps required in restarting Internet Services. - The backing up process and restoration of Web sites. 	To Explain: <ul style="list-style-type: none"> - How to perform Remote Administration. - Managing the Metabase - Administering Web Sites Using Built-In Scripts - Restarting Internet Services - Managing Web sites remotely. - Backing up and restoring Web sites. - Creating a Web site using built-in scripts and adding content using WebDAV 	Ability to project the Desktop to all students. A comprehensive workbook of IIS.	To be able to Know how : <ul style="list-style-type: none"> - Performing Remote Administration - Managing the Metabase - Administering Web Sites Using Built-In Scripts - Restarting Internet Services - Managing Web sites remotely. - Backing up and restoring Web sites. - Creating a Web site using built-in scripts and adding content using WebDAV 	Supervise the laboratory and support students in their practical work	Networked Personal computer. Router device A comprehensive workbook of computer. Internet Connection

Objectives :- Installing and Configuring Web Applications

week	Specific Learning Outcome	Teachers Activities	Resources	Specific Learning Outcome	Teachers Activities	Resources
11	To Understand: <ul style="list-style-type: none"> - Web applications and their creation and configuration process. 	To Explain: <ul style="list-style-type: none"> - What are Web applications? Creating and Removing Web 	Ability to project the Desktop to all students. A comprehensive	To be able to: <ul style="list-style-type: none"> - Creating and Removing Web Applications in IIS. 	Supervise the laboratory and support students in their practical work	Networked Personal computer. Router device

			workbook of IIS.			A comprehensive workbook of computer. Internet Connection
12	- Creation and removal process, involved in Web Applications in IIS.	Explain Creation and Removal of processes involved in a Web application	Computer system connected to the internet Web application in IIS	Create process Remove process From Web application	Explain Creation and Removal of processes involved in a Web application	Computer system connected to the internet Web application in IIS
13	- Configuration of Web Applications and installation of ISAPI Filters. - Installing and using ISAPI applications and filters	- IIS. - Configuring Web Applications. - The steps for Installing ISAPI Filters. - Creating and configuring applications. - Installing and using ISAPI applications and filters	Ability to project the Desktop to all students. A comprehensive workbook of IIS.	- Configure Web Applications. - Install ISAPI Filters. - Create and configure Applications. - Install and using ISAPI Applications and filters.	Supervise the laboratory and support students in their practical work	Networked Personal computer. Router device A comprehensive workbook of computer. Internet Connection
Objectives 9: - Implementing Security on a Web Server						
Week	Specific Learning Outcome	Teachers Activities	Resources	Specific Learning Outcome	Teachers Activities	Resources
14	To understand: - Access Configuration rights and Authentication in Web Servers. -And use Client Certificates. - Secure Web Communications environment, using SSL. -Usage of local Security Policies	To Explain: - Configuring Access Permissions for a Web Server. - Configuring Authentication for a Web Server. - Using Client Certificates. - Securing Web Communications Using SSL. - Using Local Security Policies on a Web Server.	Ability to project the Desktop to all students. A comprehensive workbook of IIS.	To be able to: - Configure Access Permissions and Configure Authentication for a Web Server. - Configure Authentication for a Web Server. - Using Client Certificates. - Securing Web Communications Using SSL.	Supervise the laboratory and support students in their practical work	Networked Personal computer. Router device A comprehensive workbook of computer. Internet Connection

	<p>in a Web Server.</p> <ul style="list-style-type: none"> -Security configuration in FTP Sites. -Configuration process of Auditing in IIS. -Securing Web resources using permissions and authentication. -Configuring an encrypted connection using SSL. 	<ul style="list-style-type: none"> - Configuring Security on an FTP Site. - Configuring Auditing for IIS. - Securing Web resources using permissions and authentication. - Configuring an encrypted connection using SSL. 		<ul style="list-style-type: none"> - Using Local Security Policies on a Web Server. - Configuring Security on an FTP Site. - Configure Auditing for IIS. - Secure Web resources using permissions and authentication. - Configure an encrypted connection using SSL. 		
Objectives 10:- Monitoring and Optimizing a Web Server						
Week	Specific Learning Outcome	Teachers Activities	Resources	Specific Learning Outcome	Teachers Activities	Resources
15	<p>To Understand:</p> <ul style="list-style-type: none"> -Optimisation process in Web Servers. - Monitoring and Optimizing Memory Usage. -Monitoring and Optimizing Processor Activity. -Monitoring and Optimizing the Available Network Bandwidth. -The management of long Files. 	<p>To Explain:</p> <ul style="list-style-type: none"> -Optimizing a Web Server. -Monitoring and Optimizing Memory Usage. -Monitoring and Optimizing Processor Activity. -Monitoring and Optimizing the Available Network Bandwidth. -Managing Log Files. 	<p>Ability to project the Desktop to all students.</p> <p>A comprehensive workbook of IIS.</p>	<p>To be able to:</p> <ul style="list-style-type: none"> -Optimize a Web Server. -Monitor and Optimizing Memory Usage. -Monitor and Optimizing Processor Activity. -Monitor and Optimizing the Available Network Bandwidth. Manage Log Files. 	<p>Supervise the laboratory and support students in their practical work</p>	<p>Networked Personal computer. Router device</p> <p>A comprehensive workbook of computer. Internet Connection</p>