Ramgarhia Polytechnic College, Phagwara

Computer Science and Engineering Department

Head of Department: Er. Poonam Rana

Name of the Faculty: Er. Anju Bala

Discipline: Computer Science and Engineering Department

Semester: 3rd

Subject: Internet and Web Technology

Lesson Plan Duration: 16 Weeks

RATIONALE

This course will enable the students to understand the basics of internet and various application of internet like e-mail, FTP, Telnet, Newsgroups and video conferencing In addition, this course develops competency amongst the students to design professional web sites and interactive web pages. They will have overview of different technologies like of HTML, DHTML, XML, CGI, ASP, JSP, Java Scripts, VB Scripts.

Learning Outcomes

After undergoing this course, the students will be able to:

CO1.   Define internet and its operation.

CO2.   Outline application of internet.

CO3.   Use application of video conferencing.

CO4.   Use application of E-communication.

CO5.   Describe the application of E-communication and benefit to society.

CO6.   Define and differentiate between various web browsers.

CO7.   Develop static webpage/web portal.

CO8.   Validate input data.

PO⇒ / CO⇩	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1				✔			
CO2				✔			
CO3				✔			
CO4				✔			
CO5	✔						
CO6							
CO7	✔			✔			
CO8				✔			

Syllabus

Units	Details	Hours
1.	Internet Basics What is Internet, its applications, specification and technical details for establishing Internet. Types and functions of modems, IP addressing, internet domains, domain name server, TCP/IP protocols, Internet service providers, Intranets, E-mail, Telnet, FTP, IRC, NNTP, Video conferencing, e-commerce	(10 hrs)
2.	Internet Connectivity Telephone line, cable, leased line, ISDN, VSAT, RF link, Wi-Fi	(04 hrs)
3.	World Wide Web (WWW): World Wide Web and its evolution, web page, web server, HTTP/HTTPS protocol. Examples of web servers. Navigation Tools: Mozilla Firefox, Google Chrome, Internet Explorer, Uniform Resource Locator (URL). Hypertext, 96 hyperlinks and hypermedia, URL, its registration, browsers, search engines, proxy servers	(10 hrs)
4.	Developing Portals Using HTML Introduction to HTML-5 and CSS-3 Basic structure of HTML, designing a web page, inserting links images, horizontal rules, comments. Formatting text, title, headings, colours, fonts, sizes, simple tables and forms. HTML tags, hyperlinks. Adding graphics and images, image maps, image files. Using tables, forms, style sheets and frames. Floating of web sites/pages.	(16 hrs)
5.	Java Script Java Script Event Modeling, Document Object Model (DOM), Validating Forms using Java script	(08 hrs)

Reference Books:

1. Internet and Web Technologies by Dr. Vipan Arora; Eagle Prakashan. Jalandhar City
2. Web Technology by Tanweer Alam; Khanna Book Publishing Co. (P) Ltd., New Delhi
3. Internet and Web Technologies by Rajkamal, Tata McGraw Hill Education Pvt Ltd , New Delhi

Delivery/Instructional Methodologies

Sr.No.	Description
1.	Chalk and Talk
2.	PowerPoint Presentation

Assessment Methodologies

Sr. No.	Description	Type
1.	Student Assignment	Direct
2.	Test	Direct
3.	Board Examination	Direct
4.	Student Feedback	Direct

Gaps in the syllabus - to meet industry/profession requirements

S.NO.	DESCRIPTION	PROPOSED ACTIONS	PO MAPPING
	N/A	N/A	N/A

Topics beyond syllabus/advanced topics

Units	Details	Hours
N/A	N/A	N/A

Web Source References

Sr. No.	URL
1.	https://nptel.ac.in/

Lesson Plan

Week	Theory		Practical	
	Lecture Day		Practical Day	
1st	1st	Introduction Internet Basics	1.	Configuring computer system to access internet
	2nd			
	3rd	What is Internet, its applications		
2nd	4th	Specification and technical details for establishing Internet.	2.	Managing social networking profile and e-mail account
	5th			
	6th	Types and functions of modems		
3rd	7th	IP addressing, internet domains, domain name server	3.	Using WWW for accessing relevant information
	8th	TCP/IP protocols, Internet service providers, Intranets, E-mail, Telnet, FTP, IRC, NNTP, Video conferencing, e-commerce		
	9th			
4th	10th		4.	To demonstrate the use of TELNET, FTP, IRC
	11th	Internet Connectivity		
	12th	Telephone line, cable, leased line, ISDN, VSAT, RF link, Wi-Fi		
5th	13th		5.	Creating Web pages using HTML
	14th			
	15th	World Wide Web (WWW): World Wide Web and its evolution		
6th	16th		6.	Creating web pages using Dream Weaver
	17th	Web page, web server		
	18th	**REVISION**		
	19th	**1st Sessional Test**		

7th	20th	**(Tentative)** HTTP/HTTPS protocol. Examples of web servers.	7.	Revision
	21st	Navigation Tools: Mozilla Firefox, Google Chrome, Internet Explorer, Uniform Resource Locator (URL).		
8th	22nd		8.	Demonstration of audio-video conferencing
	23rd			
	24th	Hypertext, hyperlinks and hypermedia, URL, its registration, browsers, search engines, proxy servers		
9th	25th		9.	Demonstration of e-commerce transaction
	26th	Developing Portals Using HTML Introduction to HTML-5 and CSS-3 Basic structure of HTML		
	27th			
10th	28th	Designing a web page, inserting links images, horizontal rules, comments.	10.	Creating the email validation using JAVA script
	29th			
	30th			
11th	31st	**REVISION**	11.	Revision:- Creating the email validation using JAVA script
	32nd			
	33rd			
12th	34th	**PTM**	12.	House test
	35th	**2nd Sessional Test (Tentative)**		
	36th	Formatting text, title, headings, colours, fonts, sizes, simple tables and forms.		
	37th			Creating of mobile validation, reage
	38th	HTML tags, hyperlinks.		

13th	39th	Adding graphics and images, image maps, image files. Using tables, forms, style sheets and frames. Floating of web sites/pages	13.	checking and empty text box.
14th	40th 41st 42nd	Java Script Java Script Event Modeling,	14	Revision:- Creating Web pages using HTML
15th	43rd	Document Object Model (DOM)	15.	Revision:- Creating web pages using Dream Weaver
	44th	Validating Forms using Java script		
	45th			
16th	46th	**PTM**	16.	Revision:- Creating of mobile validation, reage checking and empty text box.
	47th	**REVISION**		
	48th	**3rd Sessional Test (Tentative)**		

NBA has defined the following seven POs for an Engineering diploma graduate:

i)   **Basic and Discipline specific knowledge**: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

ii)   **Problem analysis:** Identify and analyze well-defined engineering problems using codified standard methods.

iii**)** **Design/ development of solutions**: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

iv)   **Engineering Tools, Experimentation and Testing**: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

v)   **Engineering practices for society, sustainability and environment**: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

vi)   **Project Management**: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

vii)   **Life-long learning**: Ability to analyze individual needs and engage in updating in the context of technological changes.

Program Specific Outcomes (PSOs)

PSOs are a statement that describes what students are expected to know and be able to do in a specialized area of discipline upon graduation from a program. Program may specify 2-4 program specific outcomes, if required.

These are the statements, which are specific to the particular 11 program. They are beyond POs. Program Curriculum and other activities during the program must help in the achievement of PSOs along with POs.