Shivajirao Kadam Institute of Technology & Management, Indore, 452020, (M.P.)
Computer Science and Engineering
Course Plan
UG

Internet & Web Technology

Course Code	CS504(A)	Session: Jul-Dec 2021		Semester: V
Tutor	Prof. Swapnil Waghela Prof. Rashmi Vijaywargiya	Revision date :		Branch: CSE
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a. Scheme of the Semester Containing the Course

S. No	Subject Code	Subject Name	Maximum Alloted Marks						Hours/Week			
			Theory			Practical						
			End Sem	Mid Sem Exam	Quiz/ Assignment	End Sem	Term Work	Total Marks	L	P	Total Credits
							Lab Work & Sessional				
3	CS-504(A)	Internet & Web Technology	70	20	10	-	-	100	3	-	3

b. Course Overview

Internet & Web Technology is intended to teach the basics involved in publishing content on the World Wide Web. This includes the 'language of the Web' – HTML, the fundamentals of how the Internet and the Web function, a basic understanding of graphic production with a specific stress on creating graphics for the Web, and a general grounding introduction to more advanced topics such as programming and scripting. This will also expose students to the basic tools and applications used in Web publishing.

c. Course Learning Objectives (CLOs)

The Learning Objectives of Internet & Web Technology are such that the student will able

1. CLO1: To understand overall structure of World Wide Web, HTTP and different web Design.
2. CLO2: to develop the modern web pages using the HTML and CSS features with different layouts as per need of applications.
3. CLO3: Know about XML, DTD and Schemas.
4. CLO4: Student should know about the Development of the modern Web applications using the client and server side technologies and the web design fundamentals.
5. CLO5: Student Use server side scripting with PHP to generate the web pages dynamically using the database connectivity.

d. Course Outcomes(COs)

Course Outcome (CO)	CO Statement
CO.504.1	Analyze a web page and identify its elements and attributes.

CO.504.2	Create web pages using HTML, XHTML and Cascading Style Sheets.
CO.504.3	Create XML documents and Schemas.
CO.504.4	Build dynamic web pages using JavaScript (Client side programming).
CO.504.5	To develop and deploy real time web applications in web servers and in the cloud.

e. Mapping Course Outcomes (COs) leading to the achievement of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)

(A) Program Outcomes (POs)

Engineering Graduates will be able to:

1. **Apply** knowledge of mathematics, science, computing and engineering fundamentals to computer science engineering problems.

2. Able to **identify, formulate,** and demonstrate with excellent programming, and problem solving skills.

3. **Design solutions** for engineering problems including design of experiment and processes to meet desired needs **within reasonable constraints** of manufacturability, sustainability, ecological, intellectual and health and safety considerations.

4. Propose and develop effective **investigational** solution of complex problems using research methodology; including design of experiment, analysis and interpretation of data, and combination of information to provide suitable conclusion. synthesis

5. Ability to create, select and use the **modern techniques** and various **tools** to solve engineering problems and to evaluate solutions with an understanding of the limitations.

6. Ability to acquire knowledge of **contemporary issues** to assess societal, health and safety, legal and cultural issues.

7. Ability to evaluate the **impact** of engineering solutions on individual as well as organization in a societal and environmental context, and recognize sustainable development, and will be aware of emerging technologies and current professional issues.

8. Capability to possess leadership and managerial skills, and understand and commit to professional **ethics** and responsibilities.

9. Ability to demonstrate the team work and **function** effectively as an individual, with an ability to design, develop, test and debug the project, and will be able to work with a multi-disciplinary team.

10. Ability to **communicate effectively** on engineering problems with the community, such as being able to write effective reports and design documentation.

11. Flexibility to feel the recognition of the need for, and have the ability to engage in independent and **life- long learning by** professional development and quality enhancement programs in context of technological change.

12. A **practice** of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and entrepreneurship.

B) Program Specific Outcomes (PSOs)

1. Develop latest solutions for real world problems; applying mathematical, engineering and project management skills through modern infrastructure and tools to benefit society and human.

2. Understand the need for sustainable development and commit to professional ethics to create an intelligent model that understand real world entities and their relationship to one another.

3. Effectively communicate knowledge, thoughts, techniques and processes to community.

CO	PO												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO.504.1	1	---	---	---	---	1	2	1	---	----	1	----	1	----	----
CO.504.2	---	1	1	---	---	1	---	1	---	2	----	1	----	2	----
CO.504.3	---	1	---	---	---	1	---	1	2	----	----	1	----	----	----
CO.504.4	1	---	---	1	---	1	1	---	---	1	2	----	1	1	1
CO.504.5	---	---	3	---	---	2	---	1	---	----	----	2	----	2	1
Average	1	1	2	1	1	3	2	2	1	2	2	2	1	3	1

Enter correlation level 1, 2, 3 as defined below-
1: Slight (Low); 2: Moderate (Medium); 3: Substantial (High) and if there is no correlation, put "----".

C) Measuring Course Outcomes attained through University Examinations

Course Code	% of students securing C grade (Grade Point 5) or more grade in Theory	Attainment Level for Theory Exams (A1)	% of students securing B grade (Grade Point 7) more grade in Practical	Attainment Level for Practical Exams (A2)	Weighted Attainment level for Theory & Practical (A1+A2)/2
CS504(A)					

Criteria for Attainment:

For Theory Exam:

I.   Attainment Level 1: If 60% students scoring $\geq$C Grade

II.   Attainment Level 2: If 61-70% students scoring $\geq$C Grade

III.   Attainment Level 3: If 71-100% students scoring $\geq$C Grade

For Practical Exam:

IV.   Attainment Level 1: If 60% students scoring $\geq$B Grade

V.   Attainment Level 2: If 61-70% students scoring $\geq$ B Grade

VI.   Attainment Level 3: If 71-100% students scoring $\geq$ B Grade

D) PO and PSO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Indirect Attainment	2	3	2	2	2	2	2	2	2	2	2	3	2	2	2
PO and PSO Attainment	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

PO Attainment level = 80% of direct assessment + 20% of indirect assessment

f. Topic delivery details of "Content beyond the Syllabus" for the attainment of POs and PSOs.

Sr. No.	Content Beyond syllabus to be taught	Satisfying PO	Satisfying PSO
1.	Real world transaction based problems	12	1

g. Distribution of Course Work as per University Scheme

Slot / Contact Type	Ingredients (per student)	Distribution of periods @ 60min		Distribution of Marks Max. Marks As per University scheme		
		Number of hours per week	Per Semester (15 weeks)	End Sem.	Internal	
					MST/LWS	Q/A
Theory Slot	Lecture (L)	5	75	70	20	10
	Tutorial (T)	--	--			

Internal Assessments are based on scheme provided by the university.

(g.1) No. of Theory Lectures Necessary for the course: 75

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(g.2) No. of Theory Lectures Unit wise:

UNIT	I	II	III	IV	V	TOTAL
Assigned No. of Lectures per Unit →	16	18	14	15	12	75

h. Prerequisite(s)
The students should have a basic idea about WWW concept, HTML and CSS.

i. Post Requisites
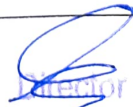The Students able to design and moderate database, design and implement business application.

j. University Syllabus
Theory

	**
Unit I	16
Introduction: Concept of WWW, Internet and WWW, HTTP Protocol : Request and Response, Web browser and Web servers, Features of Web 2.0 Web Design: Concepts of effective web design, Web design issues including Browser, Bandwidth and Cache, Display resolution, Look and Feel of the Web site, Page Layout and linking, User centric design, Sitemap, Planning and publishing website, Designing effective navigation	
	**
Unit II	18
HTML :Basics of HTML, formatting and fonts, commenting code, color, hyperlink, lists, tables, images, forms, XHTML, Meta tags, Character entities, frames and frame sets, Browser architecture and Web site structure. Overview and features of HTML5	
	**
Unit III	14
Style sheets : Need for CSS, introduction to CSS, basic syntax and structure, using CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, CSS2, Overview and features of CSS3 JavaScript : Client side scripting with JavaScript, variables, functions, conditions, loops and repetition, Pop up boxes, Advance JavaScript: Java script and objects, JavaScript own objects, the DOM and web browser environments, Manipulation using DOM, forms and validations ,DHTML : Combining HTML, CSS and Java script, Events and buttons	
	**
Unit IV	15
XML : Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas, Using XML with application. Transforming XML using XSL and XSLT PHP: Introduction and basic syntax of PHP, decision and looping with examples, PHP and HTML, Arrays, Functions, Browser control and detection, string, Form processing, Files, Advance Features: Cookies and Sessions, Object Oriented Programming with PHP	
	**
Unit V	12
PHP and My SQL: Basic command with PHP examples, Connection to server, creating database, selecting a database, listing database, listing table names, creating a table, inserting data, altering tables, queries, deleting database, deleting data and tables, PHP my admin and database bugs.	

**No of lecture required

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Tutorials

k. Books prescribed by the University
1. Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India
2. Web Technologies, Black Book, dreamtech Press

3.HTML 5, Black Book, dreamtech Press
4.Web Design, Joel Sklar, Cengage Learning
5.Developing Web Applications in PHP and AJAX, Harwani, McGrawHill
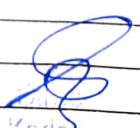6.Internet and World Wide Web How to program, P.J. Deitel & H.M. Deitel , Pearson

Additional books prescribed by the Tutor

a. Hoffer, Jeffrey A,"Modern database management System", Pearson Educations.
b. Evan Barros PBP Publications
c. Kevin Loney, "Oracle 9i Complete Reference". McGraw-Hill Publications.
d. Benjamin Rosenzweig Addison Wesley.

l. Lecture Plan

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Course Code	CS- 504(A)	Session: July-Dec2021		Semester: V
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Lr. No.	Unit No.	Topic to Cover / Content	Aim (CO)	Ref. no. [page to page].
1	U1	• History of WWW and Basic WWW Model	CO1	2[1- 3]
2		• Introduction: Concept of WWW, Internet and WWW,		2[4-5]
3		• Difference between Web & Internet		2[5-6]
4	U1	• HTTP Protocol, Request and Response, Web browser and Web servers,	CO1	2[9-8]
5	U1	• Features of Web 2.0 Web Design Concepts of effective web design,	CO1	2[8-9]
6	U1	• Comparing Between Web 1.0, Web 2.0 and Web 3.0	CO1	2[9-12]
7	U1	• Web design issues including Browser,	CO1	2[7-8]
8	U1	• Web Cache and Location	CO1	2[8-9]
9	U1	• Bandwidth and Cache	CO1	2[9-12]
10	U1	• Display resolution, Look and Feel of the Web site	CO1	2[10-12]
11	U1	• How to Use "Look and Feel" to Enhance Your Web Design	CO1	2[12-18]
12	U1	• Page Layout and linking	CO1	2[18-20]
13	U1	• User centric design, process of UCD	CO1	2[20-21]
14	U1	• Sitemap, types of sitemap	CO1	2[21-25]
15	U1	• Planning and publishing website	CO2	2[26-29]
16	U1	• Designing effective navigation.	CO2	2[30-34]
17	U2	• Introduction to HTML	CO3	2[222-225]
18	U2	• Basics Tags of HTML	CO2	2[12-18]

Lr. No.	Unit No.	Topic to Cover / Content	Aim (CO)	Ref. no. [page to page].
19	U2	• Fonts in HTML	CO3	2[267-268]
20	U2	• Formatting in HTML	CO3	2[47-49]
21	U2	• Commenting code	CO3	2[47-49]
22	U2	• HTML tag for color & hyperlink	CO3	2[50-53]
23	U2	• HTML tag for lists & tables	CO3	2[267-268]
24	U2	• HTML tag for imagesl	CO3	c, Internet Recourses, 2[180-185]
25	U2	• HTML forms Tag	CO3	2[263]
26	U2	• Form Creation	CO3	2[88-87]
27	U2	• XHTML Introduction	CO3	2[180-185]
28	U2	• HTML VS XHTML	CO4	2[59-66]
29	U2	• Meta tags	CO4	2[59-66]
30	U2	• Character entities	CO4	2[51-52]
31	U2	• frames and frame sets	CO4	2[87-88]
32	U2	• Browser architecture	CO4	2[263-266]
33	U2	• Web site structure	CO4	2[263-266]
34	U2	• Overview and features of HTML5	CO4	2[51-52]
35	U3	• Need for CSS	CO4	2[608-613]
36	U3	• CSS basic syntax and structure	CO4	2[608-613]
37	U3	• Background images using CSS	CO4	2[750-752], 2[631-632]
38	U3	• Colors properties	CO4	2[633-635], 2[682-686]
39	U3	• Manipulating texts	CO4	2[679-689]
40	U3	• Borders and boxes, margins, padding lists	CO4	2[889-893]
41	U3	• Positioning using CSS, CSS2	CO5	2[323-327]
42	U3	• Overview and features of CSS3	CO5	2[76-77], c Internet Resources
43	U3	• Client side scriptingwith JavaScript	CO5	c, Internet Resources
44	U3	• variables, functions, conditions, loops and repetition	CO5	2[702-703],
45	U3	• Pop up boxes, Advance JavaScript	CO5	2[702-703],
46	U3	• Forms and validations	CO5	2[705-706]
47	U3	• Combining HTML,CSS and Javascript	CO3	2[20-21
48	U3	• Events and buttons	CO3	2[21-25]
49	U4	• Introduction to XML	CO3	2[26-29]
50	U4	• XML & HTML	CO3	2[30-34]
51	U4	• XML keycomponents	CO3	2[222-225]
52	U4	• DTD	CO3	2[12-18]
53	U4	• Schemas	CO1	2[267-268]
54	U4	• Using XML with application	CO1	2[47-49]

Lr. No.	Unit No.	Topic to Cover / Content	Aim (CO)	Ref. no. [page to page].
55	U4	• Transforming XML using XSL and XSLT	CO1	2[47-49]
56	U4	• Introduction and basic syntax of PHP	CO1	Internet Resources
57	U4	• Decision and looping with examples	CO2	2[88-89]
58	U4	• PHP and HTML	CO2	2[145-146]
59	U4	• Browser control and detection	CO4	2[210-212]
60	U4	• Arrays, Functions & String	CO4	2[36-39]
61	U4	• Form processing	CO3	2[30-34]
62	U4	• Cookies and Sessions	CO4	2[21-25]
63	U4	• Object Oriented Programming with PHP	CO3	2[115-119]
64	U5	• Introduction to PHP	CO4	2[30-34]
65	U5	• Basic of MySQL	CO3	2[21-25]
66	U5	• Basic commands with PHP examples	CO3	2[26-29]
67	U5	• Connection to server	CO4	2[30-34]
68	U5	• Creating database, selecting a database	CO4	2[26-29]
69	U5	• Listing database, listing table names	CO5	2[30-34]
70	U5	• Creating a table, inserting data, altering tables	CO5	2[222-225]
71	U5	• Queries	CO5	2[12-18]
72	U5	• Deleting database	CO4	2[289-268]
73	U5	• Deleting data and tables	CO4	2[7-9]
74	U5	• PHP myadmin	CO5	2[47-49]
75	U5	• PHP databasebugs	CO	Internet Resources

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