Department of Applied Mathematics
and
Computational Sciences

PSG College of Technology

Coimbatore

Course File
Of
18XW28 WEB DESIGNING LAB

Name of the Faculty	K MOHAN
Course period	2019 – 2020 - EVEN SEMESTER
Semester No	2
Email id	kmn.amcs@psgtech.ac.in
Contact No	9840555496

P S G College of Technology

Vision

PSG College of Technology aspires to be recognised as one of the leaders in engineering education, research and application of knowledge to benefit society.

Mission

Provide world-class Engineering Education, Foster Research and Development. Evolve innovative applications of Technology. Encourage Entrepreneurship. Ultimately mould young men and women capable of assuming leadership of the society for the betterment of the Country.

Department of Applied Mathematics
And
Computational Sciences

Vision

"Stay ahead and be relevant."

Mission

The fundamental objective of the department is to develop quality professionals by providing concept oriented subject knowledge through high quality teaching supplemented with practical training. Apart from specialized knowledge and skills, the programmes conducted by the Department aim to develop the personality of students by inculcating values of honesty, sincerity, team spirit and work culture.

M.Sc (Software Systems)

Programme Educational Objectives

PEO1	Graduates of the program will be employed in industry, government and entrepreneurial endeavours to have a successful professional career.
PEO2	Graduates of the program will pursue higher education and /or research.
PEO3	Graduates of the program will contribute to the society and human well-being by applying ethical principles.

Programme Outcome

PO01	Ability to apply knowledge of basic sciences, mathematics, probability and statistics to computer science and solve problems.
PO02	Ability to learn the fundamentals of computing systems, design and functionality of the hardware components and their underlying execution.
PO03	Ability to model, analyse, design, visualize and realize physical systems or processes of increasing size and complexity
PO04	Ability to learn and use new development tools, software framework, middleware, programming language or methodology to aid in the development of software projects.
PO05	Ability to define, assess and adhere to software quality practices, and software processes and methodologies.
PO06	Ability to be an effective member of a multi-disciplinary software project development team with an awareness of individual, professional and ethical responsibilities.
PO07	Ability to communicate technical concepts in a complete, concise, and correct manner, and prepare documentation and presentations; participate in team meetings, brainstorming session, code reviews or group discussions.
PO08	Ability to develop technical and managerial skills needed to be an effective leader as an entrepreneur or in a software concern.
PO09	Ability to pursue research in computer science area.
PO10	Ability to recognize the need and engage in life-long learning for professional growth.

18XW28 WEB DESIGNING LAB

0 0 4 2

PREREQUISITES

- 18XW15 C PROGRAMMING
- 18XW17 C PROGRAMMING LAB
- 18XW23 DATA STRUCTURES AND ALGORITHMS

Course Objectives		Course Outcomes		Related program outcomes
1	Understand the fundamentals about Internet and World Wide Web	CO1	Students will learn fundamentals of Internet, HTML tags to design web pages and CSS rules and properties to present the web page contents	PO01, PO02, PO04, PO10
2	Obtain the thorough knowledge in designing a static web pages with attractive presentation contents			
3.	Empower the skills to design client-side, platform-independent solutions that greatly increase the value of your Web site by providing interactivity and interest	CO2	Students will learn JavaScript to make interactive web page and also server side script (PHP) to process the data send from the client and manipulate it in the server	PO01, PO04, PO05, PO07 PO08, PO10
4	Understand the server side program to process and manipulate the data on server.			
5	Develop the concept of web publishing and hosting as per the need for an information technology sector			

COURSE CONTENTS

INTRODUCTION: WWW – Presentation / Business Logic Layer - Browser Architecture – HTTP Architecture, Methods, Web Server Architecture.

HTML: Basic Structure – HTML tags – Tables – Forms – Links – Frames – DOM – Styling Tags.

CSS: Introduction – Types (Where to place CSS) – Rules – Selectors – Styling Fonts – Layouts – Positioning - Bootstrap.

JavaScript: Scripting Languages – Syntax – Variables – Data Types – Operators – Expressions – Conditional Statements – Loops – Arrays – Functions – Event Handling – Enhancing HTML Documents with JavaScript.

PHP: Evaluation of PHP – Basic Syntax – Variables – Constants – Data Types – Operator – Expression – Form Processing – Looping – Functions – Arrays – Strings – PHP Global Array - Sessions – Cookies.

WEB PUBLISHING / HOSTING: Host Registration – Domain Registering – Server FTP Upload – AJAX - JSON.

TEXT BOOKS:

1. Elizabeth Castro and Bruce Hyslop, “Visual Quickstart Guide: HTML5 and CSS3“, Peachpit Press, 2013.
2. David Flanagan, ”JavaScript: The Definitive Guide, O'Reilly Media, 2011.

REFERENCES:

1. Larry Ullman, “PHP for the Web”, Peachpit Press, 2016.
2. Luke Welling, “PHP and Web Development”, Addison Wesley, 2008.

DETAILED COURSE PLAN: (Separate problem sheets provided to the students)

Week No	Topics	Assignment/ Tutorial	Test
1	**Problem Sheet 1 –** HTML Basic Tags		
2	Continuation of Problem Sheet 1		
3`	**Problem Sheet 2 –** Form Tags & HTML 5 Tags		
4	**Problem Sheet 3 –** CSS 3 Basics		
5`	**Problem Sheet 4 –** CSS3 Layouts & Positioning		
6	Continuation of Problem Sheet 4		
7		**Online Test-1**	**CA Test 1**
8	**Problem Sheet 5 –** JavaScript Basics & Control Statements		
9	Continuation of Problem Sheet 5		
10	**Problem Sheet 6 –** JavaScript – Arrays & Functions		
11	Continuation of Problem Sheet 6		
12	Continuation of Problem Sheet 6		
13	**Problem Sheet 7 –** PHP & MySQL		
14	Continuation of Problem Sheet 7		
15	**Problem Sheet 8 –** Web Advanced Programming		
16		**Online Test-2**	**CA Test 2**
17	**Web Package Development**		
18	**Web Package Development**		
19	**Web Publishing & Hosting - Demo**		
20		**Final Lab Test**	

ONLINE LEARNING RESOURCES

- https://www.w3schools.com/html/
- https://www.tutorialspoint.com/html/index.htm
- https://www.javatpoint.com/css-tutorial
- https://www.tutorialspoint.com/css/index.htm
- http://htmldog.com/guides/javascript/
- http://www.tutorialsteacher.com/javascript/javascript-tutorials
- https://www.homeandlearn.co.uk/php/php.html
- https://www.tutorialrepublic.com/php-tutorial/

PACKAGE: (Package development topics provided and assigned for a team)

Relationship between Course Outcomes (COs) and Programme Outcomes (POs)

Course Outcome	1	2	3	4	5	6	7	8	9	10
CO1	*	*		*						*
CO2	*			*	*		*	*		*

Unit-wise Scope for Outcome and Bloom's Taxonomy

CO / Blooms Taxonomy	CO1	CO2	Relative Frequency of Scope (RF_i)	Weight W_i
Creating	*		1/2	6
Evaluating	*	*	2/2	5
Analysing	*	*	2/2	4
Applying	*	*	2/2	3
Understanding	*	*	2/2	2
Remembering	*	*	2/2	1

BTI = Bloom's Taxonomy Index: $BTI = \frac{\sum_i RF_i W_i}{\sum W_i} = \frac{(6+10+8+6+4+2)}{2\times\frac{6\times7}{2}} = \frac{36}{\frac{2}{\times21}} = 0.86$

Level of the Course: HoT (Hint: BTI ≥ 0.5 HoT (Higher order Thinking),
BTI < 0.5 LoT (Lower order Thinking)

Signature of the Faculty **Signature of HOD**