

CS6103	APPLICATION DEVELOPMENT PRACTICES	L	T	P	EL	TOTAL	CREDITS
		1	0	4	3	8	4

OBJECTIVES:

- To introduce students to programming languages and techniques associated with the world wide web and thereby create interest in programming even to students with little programming knowledge
- To introduce tools for creating interactive web pages
- To introduce the client-server architecture
- To introduce databases

MODULE I :	L	T	P	EL
	1	0	4	3

Design of webpages – Use of Cascading style sheets to style the way a webpage looks

SUGGESTED ACTIVITIES :

- EL – Learn to use CSS

SUGGESTED EVALUATION METHODS:

- Demonstration of designed webpages
- Evaluation of the preparation done in learning CSS syntax

MODULE II :	L	T	P	EL
	1	0	4	3

Incorporating multimedia into a webpage (Text / Audio / Image / Video / Animation)

SUGGESTED ACTIVITIES :

- EL – Learn how to read information from a file/array and display on the webpage

SUGGESTED EVALUATION METHODS:

- Demonstration of having incorporated multimedia in a webpage

MODULE III :	L	T	P	EL
	1	0	4	3

Writing client side scripts using Javascript / Angular JS
Client side validation

SUGGESTED ACTIVITIES :

- EL – Learn to use Javascript / Angular JS

SUGGESTED EVALUATION METHODS:

- Demonstration of using client side validation for designed web browsers

MODULE IV:	L	T	P	EL
	1	0	4	3

Designing a static website using content management frameworks

SUGGESTED ACTIVITIES :

- EL – Familiarity with any one content management framework

SUGGESTED EVALUATION METHODS:

- Evaluation of the preparation done in getting familiarized with a content management framework

MODULE V :	L	T	P	EL
	1	0	4	3
Understanding servers – Server login, Database connectivity				
SUGGESTED ACTIVITIES :				
<ul style="list-style-type: none"> EL- Overview of databases 				
SUGGESTED EVALUATION METHODS:				
<ul style="list-style-type: none"> Quiz on servers and overview of databases 				
MODULE VI:	L	T	P	EL
	4	0	0	2
Use queries for fetching from database				
Processing the results of queries				
File upload/download				
File streaming				
SUGGESTED ACTIVITIES :				
<ul style="list-style-type: none"> EL - SQL queries to create table, select, update and insert 				
SUGGESTED EVALUATION METHODS:				
<ul style="list-style-type: none"> Quiz on SQL queries Demonstration of the use of queries 				
MODULE VII:	L	T	P	EL
	1	0	4	3
Server side scripts and validation				
SUGGESTED ACTIVITIES :				
<ul style="list-style-type: none"> EL – Learn how to write server side scripts 				
SUGGESTED EVALUATION METHODS:				
<ul style="list-style-type: none"> Demonstration of the use server side scripts 				
MODULE VIII:	L	T	P	EL
	1	0	4	3
Development of web application				
SUGGESTED ACTIVITIES :				
<ul style="list-style-type: none"> EL - Select an application for which webpage has to be developed. List the features to be included. 				
SUGGESTED EVALUATION METHODS:				
<ul style="list-style-type: none"> Oral explanation of the web application to be developed 				
MODULE IX:	L	T	P	EL
	1	0	4	3
Development of web application				
SUGGESTED ACTIVITIES :				
<ul style="list-style-type: none"> EL – Application of what was learnt in the previous weeks and develop the webpage 				
SUGGESTED EVALUATION METHODS:				
<ul style="list-style-type: none"> Demonstration of developed web application 				

OUTCOMES:

Upon completion of the course, the students will be able to:

- Develop interactive websites
- Use of databases
- Understand and appreciate the use of the client-server architecture

REFERENCES:

1. Scobey, Pawan Lingras, "Web Programming and Internet Technologies An E-Commerce Approach", Second Edition, Jones & Bartlett Publishers, 2016.

EVALUATION METHOD TO BE USED:

Sl. no	Category of Courses	Continuous Assessment	Mid – Semester Assessment	End Semester
1.	Practical Integrated with Theory	40(P)	20(T)	40(P)

CS6104

DATA STRUCTURES AND ALGORITHMS

Prerequisites for the course: NIL

OBJECTIVES:

- To understand the concepts of linear and non-linear data structures
- To get an idea about suitability of data structure for an application
- To learn some fundamental algorithm design strategies
- To understand how the correctness of an algorithm can be proved
- To learn how to analyze an algorithm
- To understand the concept of NP-Completeness

CS6104	DATA STRUCTURES AND ALGORITHMS	L	T	P	EL	CREDITS
		3	1	4	3	7

MODULE I	INTRODUCTION	L	T	P	EL
		4	1	0	4

Abstract Data Types – Algorithm Properties – Overview on Proof of Correctness & Algorithm Analysis – Asymptotic Notations & Properties, Linear Search.

SUGGESTED ACTIVITIES :

- Workout on design of algorithms for some small simple problems, provide proof of correctness, and determine the complexity.
- EL - Study on average case analysis for some standard algorithms.

SUGGESTED EVALUATION METHODS:

- Assignment - Based on design, correctness and efficiency.