PRESIDENCY UNIVERSITY

ACA-2[2019] COURSE HAND OUT

SCHOOL: SOE **DEPT.: CSE** **DATE OF ISSUE: 22/01/2020**

NAME OF THE PROGRAM : B.Tech

P.R.C. APPROVAL REF. : PU/AC-11/8/06_2019

SEMESTER/YEAR : VI /3rd Year

COURSE TITLE & CODE : Internet Technologies & CSE 256

COURSE CREDIT STRUCTURE : 0-1-4-3

CONTACT HOURS : 5

COURSE INSTRUCTORS : Dr. Venugopal, Mr. James Mathew, Mr.Sunilkumar, Mr. Ramesh, Mr.Jobin,Ms. Pavithra, Ms. Shweta Singh, Ms. Shwetha B N, Ms. Vinitha Dominic, Ms.Sapna R

PROGRAM OUTCOMES:

Graduates of the B. Tech. Program in Computer Science and Engineering will be able to:

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

COURSE PREREQUISITES:

Programming fundamentals (any language), Knowledge on RDBMS, Basics of internet protocols and software development life cycle.

COURSE DESCRIPTION:

The purpose of this Course is to introduce the basic web design using Hypertext Markup Language and Cascading Style Sheets. Students will be trained in planning and designing effective web pages by writing code using current leading trends in the web domain, enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia. The focus is on popular key technologies that will help students to build Internet- and web-based applications that interact with other applications and with databases.

Topics include: HTML, XML, CSS, JAVASCRIPT, PHP, MYSQL, and AJAX

SKILL SETS:

SK 1: An attitude of enquiry.

SK 2: Confidence an ability to tackle new problems.

SK 3: Ability to interpret events & results.

SK 4: Assess errors & eliminate them.

SK 5: Observe & measure physical phenomena.

SK 6: Select suitable equipment, instrument & materials.

SK 7: Locate faults in systems.

SK 8: Manipulative skills for setting & handling equipment.

SK 9: The ability to follow standard test procedures.

SK 10: To judge magnitudes without actual measurements.

	PO 1	PO 2	PO 3	PO 5	PO 8	PO 9	PO 10	PO 12
SK 1		√			√	√	√	√
SK 2	√		√		√	√	√	√
SK 3		√			√	√	√	√
SK 4		√			√	√	√	√
SK 5				√	√	√	√	√
SK 6				√	√	√	√	√
SK 7		√			√	√	√	√
SK 8			√	√	√	√	√	√
SK 9			√	√	√	√	√	√
SK 10		√			√	√	√	√

COURSE OUTCOMES:

After the completion of the course students shall be able to:

1. Describe the concept of web application terminologies and internet tools.
2. Employ HTML tags and CSS features to develop a web site.
3. Employ java-script and Ajax concepts to develop dynamic web site.
4. **Demonstrate database driven web application with server side script using PHP .**

MAPPING OF C.O. WITH P.O.

CO NO.	P01	P02	P03	P05	P06	P09	P010	P012
1	H		M	M	L	L	L	L
2	H	L	H	M	L	L	L	L
3	H	L	H	M	L	L	L	L
4	H	L	H	M	L	L	L	L

List of Experiments

Sl. No	Experiment no	Experiment Name	List of skill set	CO
1.	1	Familiarization WWW and internet eco-system. Usage of version control system(GitHub)	SK1,SK3,SK8:	CO1
2.	2	Learn and use HTML and CSS to structure the content and to style the web pages.	SK1,SK2,SK3,SK5,SK7,SK9SK10	CO1, CO2
3.	3	Learn and use JavaScript for client side scripting requirements.	SK1,SK2,SK3,SK4,SK7,SK9,SK10	CO1, CO2, CO3
4.	4	Learn to use web server (Apache) and server side scripting using PHP along with database.	SK1,SK2,SK3,SK4,SK6,SK7,SK9, SK10	CO1, CO2, CO3, CO4
5.	5	Learn to create rich internet applications using AJAX.	SK1,SK2,SK3,SK4,SK6,SK7,SK9, SK10	CO1, CO2, CO3, CO4

REFERENCE MATERIALS:

Textbook:

1. Deitel, Deitel, and Nieto, "Internet and World Wide Web – How to program", Pearson Education.

Reference Books:

1. Randy Connolly, "Fundamentals of Web Development", Pearson Education
2. Robert W Sebesta, "Programming the World Wide Web", Pearson Education

Online reference:

1. W3schools.com
2. Developer.mozilla.org/en-US/docs/Learn

LAB EXPERIMENT SCHEDULE:

SL. NO.	DATE*	ACTIVITY
1.	23/01/2020	Over View of the lab

2.	23/01/2020	Introduction to Internet & brief history of WWW, Internet Protocols, Client server Model, DNS, URL, HTTP, Full Stack
3.	28/01/2020	Version Control Systems
4.	30/01/2020	Quiz-I , Introduction To HTML
5.	30/01/2020	HTML ,Basic elements & attributes
6.	04/02/2020	Structure of HTML documents
7.	06/02/2020	Headings, Paragraphs, Divisions, Links, Images, Character Entities ,Lists, Tables
8.	06/02/2020	HTML5 semantic structure elements
9.	11/02/2020	Quiz-II& Practice session I
10.	13/02/2020	Introduction to CSS & types
11.	13/02/2020	CA-I
12.	18/02/2020	CSS selectors ,Benefits of CSS
13.	20/02/2020	CSS Text Styling
14.	20/02/2020	Box model, How Styles interact
15.	27/02/2020	Introduction to Java-script
16.	27/02/2020	Quiz-III & Practice session II
17.	03/03/2020	CA-II
18.	10/03/2020	Java-script Syntax, Java-script objects
19.	12/03/2020	DOM, Java-script Events
20.	12/03/2020	DOM, Java-script Events
21.	17/03/2020	HTML Forms
22.	19/03/2020	HTML form Validation Techniques
23.	19/03/2020	HTML form Validation Techniques
24.	24/03/2020	HTML form Validation Techniques
25.	26/03/2020	Introduction to PHP
26.	26/03/2020	Quiz-IV & Practice session III
27.	31/03/2020	CA-III
28.	02/04/2020	Introduction to server side scripting
29.	02/04/2020	PHP tags, Variables , Data types, Writing output, Program Control, Functions
30.	09/04/2020	Connecting to database, PHP Arrays and Form Processing
31.	09/04/2020	Connecting to database, PHP Arrays and Form Processing
32.	16/04/2020	Introduction to AJAX
33.	16/04/2020	Mid Term
34.	21/04/2020	Accessing Databases in Web Application
35.	23/04/2020	Quiz-V & Practice session IV
36.	23/04/2020	Working with database using PHP
37.	28/04/2020	CA-IV
38.	30/04/2020	Case Study –I – Follow SDLC principles
39.	30/04/2020	Case Study –I
40.	05/05/2020	Case Study –I
41.	07/05/2020	Case Study –I
42.	07/05/2020	Case Study –II

43.	12/05/2020	Case Study –II
44.	14/05/2020	Case Study –II
45.	14/05/2020	Case Study –II

* These dates are only indicative - applicable to one section handled by subject IC. Dates will vary from section to section.

ASSESSMENT SCHEDULE:

Sl.NO	Assessment Type	Contents	CO NO	Duration In Hours	Marks	Weightage	Venue, DATE &TIME
1	Continuous evaluation (Assessments, quiz, Lab record and attendance)		CO1, CO2, CO3, CO4	2hrs	100	50%	
2	Mid Term Lab Test		CO1, CO2, CO3	2hrs	40	20%	
3	End Term Lab Exam	Full syllabus	CO1 CO2, CO3, CO4	3hrs	60	30%	

COURSE CLEARANCE CRITERIA: A minimum of 75% attendance is required to attend the end term exam. Make-up policy will be only as per academic regulation.

Target set for course Outcome attainment:

Sl.no	C.O. No.	Course Outcomes	Target set for attainment in percentage
01	CO1	Describe the concept of web application terminologies and internet tools.	85%
02	CO2	Employ HTML tags and CSS features to develop a web site.	75%
03	CO3	Employ java-script and Ajax concepts to develop dynamic web site.	70%
04	CO4	Demonstrate database driven web application with server side script using PHP	70%

Signature of the course Instructor

This course has been duly verified Approved by the D.A.C.

Signature of the Chairperson D.A.C.

Course Completion Remarks &Self-Assessment.[This has to be filled after the completion of the course]

[Please mention about the course coverage details w.r.t. the schedule prepared and implemented. Any specific suggestions to incorporate in the course content. Any Innovative practices followed and its experience. Any specific suggestions from the students about the content, Delivery, Evaluation etc.]

Sl.no.	Activity As listed in the Experiment Schedule	Scheduled Completion Date	Actual Completion Date	Remarks

Any specific suggestion/Observations on content/coverage/pedagogical methods used etc.:

Course Outcome Attainment:

Sl.no	C.O. No.	Course Outcomes	Target set for attainment in percentage	Actual C.O. Attainment In Percentage	Remarks on attainment &Measures to enhance the attainment
01	CO1	Describe the concept of web application terminologies and internet tools.	85%		
02	CO2	Employ HTML tags and CSS features to develop a web site.	75%		
03	CO3	Employ java-script and Ajax concepts to develop dynamic web site.	70%		
04	CO4	Demonstrate database driven web application with server side script using PHP	65%		

Name and signature of the Faculty member:

D.A.C. observation and approval: