

Semester	Course Code	Course Category	Hours/ Week	Credits	Marks for Evaluation		
					CIA	ESE	Total
III	23UITVAC1	VALUE ADDED COURSE	6	-	-	-	100
<b>Course Title</b>		Interactive Web Page Development					

SYLLABUS		
Unit	Contents	Hours
I	HTML-Introduction-tag basics- page structure-adding comments working with texts, paragraphs and line break. Emphasizing text- heading and horizontal rules-lists-Tables-Frames.	6
II	Cascading style sheet (CSS)-what is CSS-Why we use CSS-adding CSS to your web pages-Grouping styles-Extensible Mark-up language-Forms- textbox, password, list box, combo box, text area, tools for building web page front page.	6
III	JavaScript: Client-side scripting, How to develop JavaScript, simple JavaScript, variables, functions, conditions, loops and repetition.	6
IV	Advance script, JavaScript and objects, JavaScript own objects, the DOM and web browser environments, forms and validations.	6
V	Starting out with AngularJS: A Basic AngularJS Application - AngularJS Hello World. Basic Angular JS Directives and Controllers- AngularJS Modules - Working with and Arrays.	6

Text Book(s):
<ol style="list-style-type: none"> <li>1. Pankaj Sharma, <i>Web Technology</i>, Sk Kataria &amp; Sons Bangalore 2011</li> <li>2. Mike Mcgrath, <i>Java Script</i>, Dream Tech Press 2006, 1<sup>st</sup> Edition.</li> <li>3. ShyamSeshadri&amp; Brad Green, <i>Angular JS: Up and Running</i>, Published by O'Reilly Media, Inc., First Edition, 2014</li> <li>4. Valeri Karpov, Diego Netto, "<i>Professional AngularJS</i>", Wrox Publication, First Edition, 2015</li> </ol>
Web Resource(s):
<ol style="list-style-type: none"> <li>1. <a href="https://www.tutorialspoint.com/html/index.htm">https://www.tutorialspoint.com/html/index.htm</a></li> <li>2. <a href="https://www.w3schools.com/html/">https://www.w3schools.com/html/</a></li> <li>3. <a href="https://www.javatpoint.com/dhtml">https://www.javatpoint.com/dhtml</a></li> <li>4. <a href="https://www.tutorialspoint.com/angularjs/index.htm">https://www.tutorialspoint.com/angularjs/index.htm</a></li> </ol>

Course Outcomes		
Upon successful completion of this course, the student will be able to:		
CO No.	CO Statement	Cognitive Level (K-Level)
CO1	Recognize the basics of HTML, DHTML, CSS, Java Script and AngularJS	K1
CO2	Identify page styles and layout with Cascading Style Sheets (CSS).	K2
CO3	Understand the role of scripting languages in interactive page design.	K2
CO4	Apply the JavaScript for client-side validation.	K3
CO5	Design the websites using client-side web technologies	K5

**Course Coordinator:** Dr. S. Abdul Saleem

Semester	Course Code	Course Category	Hours/ Week	Credits	Marks for Evaluation		
					CIA	ESE	Total
V	23UITVAC2	VALUE ADDED COURSE	6	-	-	-	100
<b>Course Title</b>		Java Server Pages					

SYLLABUS		
Unit	Contents	Hours
I	Introduction to JSP – Advantages – Setting-up Tomcat Web Server/Glassfish Application Server – JSP Architecture – JSP Life-Cycle-JSP operators – Literals.	6
II	JSP Elements – Scriptlets-Declarations- Expressions- Comments –Directives – Standard Actions- JSP implicit objects.	6
III	JSP-Client Requests- The HttpServletRequest Object-HTTP Header Request Example. JSP-Server Response-The HttpServletResponse Object:	6
IV	JSP-Form Processing-GET and POST methods-Reading Form Data using JSP- Passing Checkbox Data to JSP Program-Reading All Form Parameters.	6
V	JSP-Cookies handling -Setting Cookies with JSP-Reading Cookies with JSP-JSP Session Tracking-Hidden Form Fields-URL Rewriting- The Session Object.	6

<b>Text Book(s):</b>
Phillip Hanna, <i>JSP 2.0-The Complete Reference-Second Edition</i> , McGraw Hill Education, 2017
<b>Web Resource(s):</b>
1. <a href="https://www.javatpoint.com/jsp-tutorial">https://www.javatpoint.com/jsp-tutorial</a> 2. <a href="https://www.geeksforgeeks.org/introduction-to-jsp/">https://www.geeksforgeeks.org/introduction-to-jsp/</a> 3. <a href="https://www.tutorialspoint.com/jsp/index.htm">https://www.tutorialspoint.com/jsp/index.htm</a>

Course Outcomes		
Upon successful completion of this course, the student will be able to:		
CO No.	CO Statement	Cognitive Level (K-Level)
CO1	Observe the basics of Java Server Pages	K1
CO2	Understand the elements of JSP	K2
CO3	Experiment with the JSP Implicit Objects	K3
CO4	Realize the request and response protocols in JSP	K4
CO5	Develop the real-life applications using JSP	K5

**Course Coordinator:** Dr. S. Abdul Saleem

Semester	Course Code	Course Category	Hours/ Week	Credits	Marks for Evaluation		
					CIA	ESE	Total
III	23PCSVAC1	VALUE ADDED COURSE	6	-	-	-	100
<b>Course Title</b>		DevOps with AWS					

SYLLABUS		
Unit	Contents	Hours
I	Introduction to DevOps -Understanding the principles of DevOps-DevOps tools and technologies. Introduction to AWS-Overview of AWS services-Understanding of AWS Regions, Availability Zones, and Edge Locations-AWS Management Console, AWS CLI, and AWS SDKs.	6
II	Infrastructure as Code(IaC) -AWS Cloud Formation -AWS CDK - AWS SAM-Continuous Integration and Continuous Deployment (CI/CD): AWS CodePipeline-AWS CodeBuild -AWS CodeDeploy-Elastic Compute Resources: Understanding EC2-EC2 instance types -Elastic Load Balancing.	6
III	Introduction to containers-Docker-Amazon Elastic Container Service (ECS)-Amazon Elastic Kubernetes Service (EKS) -Monitoring and Logging: AWS CloudWatch -AWS X-Ray-AWS CloudTrail.	6
IV	Security :AWS Identity and Access Management (IAM) -AWS Key Management Service (KMS) -AWS Security Hub -Serverless Computing -AWS Lambda- AWS API Gateway-AWS Step Functions.	6
V	Infrastructure Management and Automation : AWS Systems Manager-AWS OpsWorks-AWS Elastic Beanstalk-AWS CloudFormation Custom Resources-Infrastructure Testing and Compliance.	6

<b>Text Book(s):</b> 1. Mikael Krief, <i>Learning DevOps</i> , Packt Publishing, 2019 (ebook) 2. Joakim Verona, <i>Practical DevOps</i> , Packt Publishing Limited, 2016 (ebook) 3. Veselin Kantsev, <i>Implementing Devops on AWS</i> , Ingram short title, 2017 (ebook)
<b>Web Resource(s):</b> 1. <a href="https://www.javatpoint.com/devops">https://www.javatpoint.com/devops</a> 2. <a href="https://learn.microsoft.com/en-us/training/paths/evolve-your-devops-practices/">https://learn.microsoft.com/en-us/training/paths/evolve-your-devops-practices/</a> 3. <a href="https://intellipaat.com/blog/tutorial/devops-tutorial/">https://intellipaat.com/blog/tutorial/devops-tutorial/</a>

Course Outcomes		
Upon successful completion of this course, the student will be able to:		
CO No.	CO Statement	Cognitive Level (K-Level)
CO1	Learn the basic principles of web services	K1
CO2	Understand the fundamental concepts of DevOps	K2
CO3	Utilize the elastic compute resources	K3
CO4	Explain the container services provided by DevOps	K4
CO5	Decide the infrastructure management and automation	K5

**Course Coordinator:** Dr. S. Vaaheetha Kfatheen