



**R21 Regulations**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
(Established by Govt. of A.P., ACT No.30 of 2008)  
ANANTHAPURAMU – 515 002 (A.P) INDIA

**MASTER OF COMPUTER APPLICATIONS**

| Course Code  | WEB TECHNOLOGIES | L            | T | P | C |
|--|------------------|--------------|---|---|---|
| 21F00391   |                  | 4            | 0 | 0 | 4 |
|  | <b>Semester</b>  | <b>III</b>   |   |   |   |
| <b>Course Objectives:</b>  |                  |              |   |   |   |
| <ul style="list-style-type: none"><li>To introduce PHP language for server-side scripting</li><li>To introduce XML and processing of XML Data with Java</li><li>To introduce Server-side programming with Java Servlets and JSP</li><li>To introduce Client-side scripting with Javascript and AJAX.</li></ul>   |                  |              |   |   |   |
| <b>Course Outcomes (CO):</b> Student will be able to   |                  |              |   |   |   |
| <ul style="list-style-type: none"><li>Gain knowledge of client-side scripting, validation of forms and AJAX programming</li><li>Understand server-side scripting with PHP language</li><li>Understand what is XML and how to parse and use XML Data with Java</li><li>To introduce Server-side programming with Java Servlets and JSP</li></ul>  |                  |              |   |   |   |
| <b>UNIT - I</b>  |                  | Lecture Hrs: |   |   |   |
| Introduction to PHP: Declaring variables, data types, arrays, strings, operators, expressions, control structures, functions, Reading data from web form controls like text boxes, radio buttons, lists etc., Handling File Uploads. Connecting to database (MySQL as reference), executing simple queries, handling results, Handling sessions and cookies<br>File Handling in PHP: File operations like opening, closing, reading, writing, appending, deleting etc. on text and binary files, listing directories |                  |              |   |   |   |
| <b>UNIT - II</b>   |                  | Lecture Hrs: |   |   |   |
| HTML Common tags- List, Tables, images, forms, Frames; Cascading Style sheets;<br>XML: Introduction to XML, Defining XML tags, their attributes and values, Document Type Definition, XML Schemes, Document Object Model, XHTML Parsing XML Data – DOM and SAX Parsers in java.  |                  |              |   |   |   |
| <b>UNIT - III</b>  |                  | Lecture Hrs: |   |   |   |
| Introduction to Servlets: Common Gateway Interface (CGI), Life cycle of a Servlet, deploying a servlet, The Servlet API, Reading Servlet parameters, Reading Initialization parameters, Handling Http Request & Responses, Using Cookies and Sessions, connecting to a database using JDBC.  |                  |              |   |   |   |
| <b>UNIT - IV</b>   |                  | Lecture Hrs: |   |   |   |
| Introduction to JSP: The Anatomy of a JSP Page, JSP Processing, Declarations, Directives, Expressions, Code Snippets, implicit objects, Using Beans in JSP Pages, Using Cookies and session for session tracking, connecting to database in JSP.   |                  |              |   |   |   |
| <b>UNIT - V</b>  |                  | Lecture Hrs: |   |   |   |
| Client-side Scripting: Introduction to JavaScript, JavaScript language – declaring variables, scope of variables, functions. event handlers (on click, on submit etc.), Document Object Model, Form validation.  |                  |              |   |   |   |
| <b>Text Books:</b>   |                  |              |   |   |   |
| <ol style="list-style-type: none"><li>Web Technologies, Uttam K Roy, Oxford University Press</li><li>The Complete Reference PHP — Steven Holzner, Tata McGraw-Hil</li></ol>  |                  |              |   |   |   |