| Subject Code | Subject Name | Teaching Scheme | | | Credits Assigned | | | |
|---|---|---|---|---|---|---|---|---|
| | | Theory | Practical | Tutorial | Theory | TW/ Practical | Tutorial | Total |
| SEITC405 | Web Programming | 04 | 02 | -- | 04 | 01 | -- | 05 |

| Subject Code | Subject Name | Examination Scheme | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Theory Marks | | | | Term Work | Practical | Oral | Total |
| | | Internal assessment | | | End Sem. Exam | | | | |
| | | Test 1 | Test 2 | Avg. of 2 Tests | | | | | |
| SEITC405 | Web Programming | 20 | 20 | 20 | 80 | 25 | --- | 25 | 150 |

**Objective:**

As the part played by Internet in our daily life increases so does the importance of methods and means of Web site realization. This course is devoted to acquire knowledge and skills for creation of Web site considering both client- and server-side programming.

**Outcome:**

Student must be able to:

- Learn basics of web architecture and web development.
- Acquire the knowledge of tools used in industry for web application development.
- □ Create theweb application using tools and techniques learned.

**Topics:**

- Introduction to web technologies
- Client side programming – HTML 5.0, XHTML, CSS, JavaScript
- Server side programming I – ASP.NET and JSP
- Server side programming II -- PHP
- Server side database connectivity
- Web extensions

**Detailed Syllabus**

| Sr. No. | Detail Contents | Weightage | Number of hours |
|---|---|---|---|
| 1 | Introduction to web technologies:<br>Introduction to OSI layers, Web system architecture- 1,2,3 and n tier architecture, URL, domain name system, overview of HTTP and FTP, Cross browser compatibility issues, W3C Validators,Web Site Design Issues: Planning a Web Site – Objective and Goals, Audience, Organizing contents, Publishing of Web Site. Function of Web Server | 05% | 03 |
| 2 | Client Side Programming– HTML 5.0, CSS and JavaScript:<br>Basic HTML, formatting and fonts, Anchors, images, lists, tables, frames and forms, Introduction to CSS, Using CSS for text, background, links and positioning, Introduction to JavaScript, JavaScript language constructs, Objects in JavaScript- Built in, Browser objects and DOM objects, event handling, form validation and cookies. Introduction to JQUERY, The Basics of JQUERY programming, form validation using JQUERY. | 25% | 12 |
| 3 | Server side programming I: ASP.NET and JSP<br>Introduction to c# language,ASP.NET essentials, Life cycle of ASP.NET application,Developing web forms using ASP.NET, Using ASP.NET server controls to create web forms, Session tracking , Introduction to servlet and JSP, life cycle of JSP and servlet, Introduction to basic objects in JSP. | 35% | 16 |
| 4 | Server side programming II: PHP<br>Introduction to PHP- Data types, control structures, built in functions,Building web applications using PHP- tracking users, Introduction to PHP framework. | 10% | 08 |
| 5 | Server side database connectivity:<br>Database connectivity using ADO.Net, JSP &JDBC connectivity with example,PHP and Mysql database connectivity with example. | 20% | 06 |
| 6 | Web Extensions:<br>XML, Introducing XSL, XSL elements, transforming with XSLT, Web feeds (RSS), Introduction to web services. | 05% | 03 |

**Text Books:**

1. "Web Technologies: Black Book", Dreamtech publication
2. "Learning PHP 5", David Sklar, O'Reilly Publication
3. "The Web Warior Guide to Web Programming", Bai, zak, Ekedahl,Farrell, CENGAGE Learning Publication

**Reference Books:**

1. "Internet and world wide web how to program", Deitel&Deitel, Prentice Hall publication
2. "Developing web applications", Ralph Moseley, M.T.Savaliya, Wiley Publication.
3. "Web Programming", Chris Bates, Third edition, Wiley publication
4. "Web Technologies", Uttam K. Roy, Oxford University Press

**Suggested Practical List:**

1. Web pages using HTML 5.0 using Dreamviewer (Preferred) / Any other HTML editor
2. Web pages using JavaScript illustrating the objects in JavaScript
3. Form validation/ event handling using jQuery
4. Web Application development using ASP.NET
5. Database connectivity with ADO.NET
6. Database connectivity using JDBC and JSP
7. Installation and configuration of WAMP server
8. Introduction of PHP framework(Yii,CakePHP, CodeIgniter) and simple application development using the same.
9. Web application development using PHP
10. Database connectivity with PHP
11. A mini project – Complete web site development using
    a. HTML, CSS, JavaScript and ASP.NET OR
    b. HTML, CSS, JavaScript and PHP

**Theory Examination:**

- Question paper will comprise of 6 questions, each carrying 20 marks.
- Total 4 questions need to be solved.
- Q.1 will be compulsory, based on entire syllabus wherein sub questions of 2 to 3 marks will be asked.
- Remaining question will be randomly selected from all the modules.

Weightage of marks should be proportional to number of hours assigned to each module.