Course Code	Course Name	Theory	Practical	Tutorial	Theory	TW /Practical	Tutorial	Total
ITL501	Internet Programming Lab	--	2	--	--	1	--	1

Course Code	Course Name	Examination Scheme						
		Theory Marks				Term Work	Oral & Practical	Total
		Internal assessment			End Sem. Exam			
		Test 1	Test 2	Avg. of two Tests				
ITL501	Internet Programming Lab	--	--	--	--	25	25	50

Lab Objectives: Students will try:

1. To Acquire knowledge and Skills for creation of Web Site considering both client- and server-side Programming.
2. To create Web application using tools and techniques used in industry.
3. To learn the characteristics of RIA
4. To Demonstrate Amazon/Google or Yahoo mashup
5. To be well versed with XML and web services Technologies.

6. To be familiarized with open source Frameworks for web development.

Lab Outcomes: Students will learn to;

1. Design a basic web site using HTML5 and CSS3 to demonstrate responsive web design.
2. Implement dynamic web pages with validation using JavaScript objects by applying different event handling mechanism.
3. Use AJAX Programming Technique to develop RIA
4. Develop simple web application using server side PHP programing and Database Connectivity using MySQL.
5. Build well-formed XML Document and implement Web Service using Java.
6. Demonstrate simple web application using Python Django Framework.

Hardware and Software requirements:

Hardware Requirements	Software Requirements	Other Requirements
PC With following Configuration 1. Intel Core i3/i5/i7 Processor 2. 4 GB RAM 3. 500 GB Harddisk	1. Windows or Linux Desktop OS 2. HTML5 compatible web browsers(Chrome, Opera, Firefox, Safari etc) 3. HTML,CSS editors like Dreamweaver, Notepad++ etc. 4. Netbeans or Eclipse IDE 5. XAMPP	1. Internet Connection installation of web frameworks

Prerequisite: Basics of Java and Python Programming

Guidelines

1. The mini project work is to be conducted by a group of three students

2. Each group will be associated with a subject Incharge/ mini project mentor. The group should meet with the concerned faculty during Laboratory hours and the progress of work discussed must be documented.

3. The students may do will visit different websites to identify their website topic for the mini project.

4. Each group will identify the Hardware and software requirement for their mini project problem statement.

5. Mini Project consists of Responsive Website Development.

6. Which includes following points

    a. Introduction to RWD frame work?

    b. Identify tools

    c. CSS preprocessor

    d. Construction and design of skeleton for website

    e. Enhancing CSS3 and HTML5 in website

    f. Server Side Programming: website using server side scripting in PHP and database connectivity using MySQL (PHP framework like Laravel/Joomla can be used)

    g. XML ,XSL and Web Services

    h. Developing RIA using AJAX including -A browser built-in XMLHttpRequest object (to request data from a web server) and JavaScript and HTML DOM (to display or use the data) Building Amazon/Yahoo /Google Web Mashups for the website.

    i. Website Security

    j. Develop full website and launch it.

7. Each group may present their work in various project competitions and paper presentations.

8. A detailed report is to be prepared as per guidelines given by the concerned faculty.

Text Books:

1. Responsive Web Design by Example Beginner's Guide by Thoriq Firdaus, PACKT
2. Responsive Web Design with HTML5 and CSS3 PACKT
3. Professional Rich Internet Application : AJAX and Beyond WROX press

References:

1. Laravel: Up and Running, By Matt Stauffer O'Reilly Media.
2. Advanced Internet Technologies (includes practicals) ,Deven Shah ,Dreamtech publication
3. Django By Example By Antonio Melé,Pakt Publication

Term Work:
Term Work shall consist of full Mini Project on above guidelines/syllabus. Also Term work Journal must include at least 2 assignments.
Term Work Marks: 25 Marks (Total marks) = 15 Marks (Mini Project) + 5 Marks (Assignments) + 5 Marks (Attendance)

Oral Exam: An Oral exam will be held based on the Mini Project and Presentation.