

FR. Conceicao Rodrigues College Of Engineering

Father Agnel Ashram, Bandstand, Bandra-west, Mumbai-50

Department of Information Technology

B.E. (IT) (semester V) (2018-2019)

Lesson Plan:

Subject: Internet Programming (ITC502)

Credit-4

Course Code	Course Name	Theory	Practical	Tutorial	Theory	Oral & Practical	Tutorial	Total
ITC502	Internet Programming	04	--	--	04	--	--	04

Course Code	Course Name	Examination Scheme							
		Theory Marks				Term Work	Oral & Practical	Oral	Total
		Internal assessment			End Sem. Exam				
		Test1	Test2	Avg. of two Tests					
ITC502	Internet Programming	20	20	20	80	--	--	--	100

Course Objectives: Students will try to learn:

- 1 To get familiar with basics of the Internet Programming.
2. To acquire knowledge and skills for creation of web site considering both client and server side programming
3. To gain ability to develop responsive web applications
4. To explore different web extensions and web services standards
5. To learn characteristics of RIA –Web Mashup EcoSystem
6. To be familiarized with Python web framework-Django.

Course Outcomes: Students will be able to:

1. Implement interactive web page(s) using HTML,CSS and JavaScript.
2. Design a responsive web site using HTML5 and CSS3.
3. Demonstrate Rich Internet Application .
4. Build Dynamic web site using server side PHP Programming and Database connectivity.
5. Describe and differentiate different Web Extensions and Web Services.
6. Demonstrate web application using Python webFramework-Django

Prerequisite: Basic Java Programming and Python Programming.

Detailed syllabus:

Sr. No.	Module	Detailed Content	Hours	CO Mapping
0	Prerequisite	Introduction to web technologies: Introduction to OSI layers,	02	---
I	Client Side Programming :HTML, CSS and JavaScript	<p>Basic of HTML: 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.</p> <p>Formatting and Fonts, Anchors, images, lists, tables, frames and forms.</p> <p>Introduction to CSS: Evolution of CSS, Syntax of CSS, Exploring CSS Selectors, Inserting CSS in an HTML Document, Defining Inheritance in CSS.</p> <p>Introduction to JavaScript: JavaScript language constructs, Objects in JavaScript- Built in, Browser objects and DOM objects, event handling, form validation and cookies.</p>	09	CO1
II	HTML5 and Responsive Web Design with CSS3	<p>HTML 5 : Fundamental Syntax and Semantics, Native Audio and Video, Micro data and Custom data, Accessibility, Geo-location, Canvas</p> <p>CSS3 and Responsive Web Design</p> <p>Media Queries: Supporting Differing Viewports, Embracing Fluid Layout.</p> <p>CSS3: Selectors, Typography and color Modes, Stunning Aesthetics with CSS3, CSS3 Transitions, Transformations and Animations, Conquer Forms HTML5 and CSS3</p>	12	CO1 CO2
III	Rich Internet Application(RIA)	<p>Characteristics of RIA,</p> <p>Introduction to AJAX : AJAX design basics, AJAX vs Traditional Approach, , Rich User Interface using Ajax.</p> <p>Working with JavaScript Object Notation(JSON): Create data in JSON format, JSON Parser .</p>	09	CO3

		Web Mashup Eco Systems –Mashup Techniques: Mashing on the Web Server, Mashing with JSON		
IV	Server Side Programming: PHP	Introduction to PHP- Data types, control structures, built in functions, Building web applications using PHP- tracking users, PHP and Mysql database connectivity with example. Introduction to PHP Framework.	08	CO4
V	Web Extensions and Web Services	Web Extensions: Introduction to XML, Introducing XSL. Web services: Evolution and differences with Distributed computing, WSDL, SOAP, UDDI. REST-ful web services, Resource Oriented Architecture	07	CO5
VI	Python Web Framework: Django	Introduction, Web Frameworks, Introduction to Django ,Projects and Apps, “Hello World” Application.	05	CO6

Text Books:

1. HTML 5 Black Book: Kogent Learning solutions
2. “Learning PHP 5”, David Sklar, O’Reilly Publication
3. Rich Internet Application AJAX and Beyond WROX press
4. Responsive Web Design with HTML5 and CSS3, Ben Frain, PACKT Publication

References:

1. “Web Technologies: Black Book”, Dreamtech publication
2. HTML5 Cookbook, By Christopher Schmitt, Kyle Simpson, O'ReillyMedia
3. Core Python Applications Programming by Wesley J Chun Third edition Pearson Publication
4. Advanced Internet Technologies (includes practicals), Deven Shah, Dreamtech publication

Assessment:

Internal Assessment for 20 marks:

Consisting of Two Compulsory Class Tests

Approximately 40% to 50% of syllabus content must be covered in First test and remaining 40% to 50% of syllabus contents must be covered in second test.

End Semester Examination: Some guidelines for setting the question papers are as:

- Weightage of each module in end semester examination is expected to be/will be proportional to number of respective lecture hours mentioned in the syllabus.
- Question paper will comprise of total **six questions, each carrying 20 marks.**
- **Q.1** will be **compulsory** and should **cover maximum contents of the syllabus.**
- **Remaining question will be mixed in nature** (for example if Q.2 has part (a) from module 3 then part (b) will be from any other module. (Randomly selected from all the modules.)
- Total **four questions** need to be solved.

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2. Course Outcome Statement

Sr.No.	Course Outcome Statement
ITC502.1	Implement interactive web page(s) using HTML,CSS and JavaScript.
ITC502.2	Design a responsive web site using HTML5 and CSS3.
ITC502.3	Demonstrate Rich Internet Application .
ITC502.4	Build Dynamic web site using server side PHP Programming and Database connectivity.
ITC502.5	Describe and differentiate different Web Extensions and Web Services.
ITC502.6	Demonstrate web application using Python web Framework-Django

3.CO-PO and CO-PSO Mapping

Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
ITC502.1			2		3								2	3
ITC502.2			2		3								2	3
ITC502.3			2		3								2	3
ITC502.4			2		3								2	3
ITC502.5			2		3								2	3
ITC502.6			2		3								2	3

4. CO Assessment Tools

CO number	Direct Measurement				Indirect Measurement
	UT1	UT2	Quiz	Univ. Theory	Course Exit Survey
ITC502.1	40%		30%	30%	100%
ITC502.2	70%			30%	100%
ITC502.3		70%		30%	100%
ITC502.4		70%		30%	100%
ITC502.5		70%		30%	100%
ITC502.6		70%		30%	100%

5. Course Outcomes Target:

Upon Completion of this course, students will be able to :

ITC502.1: Implement interactive web page(s) using HTML,CSS and JavaScript..[B2:Application]

Target level: 2.0

ITC502.2: Design a responsive web site using HTML5 and CSS3 [B3:Application]

Target level: 2.0

ITC502.3:. Demonstrate Rich Internet Application [B3:Application]

Target level: 2.0

ITC502.4: Build Dynamic web site using server side PHP Programming and Database connectivity. [B3:Application]

Target level: 2.0

ITC502.5: Describe and differentiate different Web Extensions and Web Services. [B1:Knowledge]

Target level: 2.0

ITC502.6: Build Demonstrate web application using Python web Framework-Django [B3:Application]

Target level: 2.0

6.Content Beyond Curriculum

1. Suggested online courses beyond syllabus

7.Lesson Plan

No of classes available:	41	1. No of Classes taken: 2.Total Remedial Lectures	41 03	
Sr. No.	Topic Planned with CO	Planned Date	Actual Date	Delivery Mechanisms
	Don't forget to include CO dissemination			
1.	Prerequisite	02-07-2018	02-07-2018	Blackboard, ppt, notes
2.	Client side Programming: HTML, CSS, Javascript (ITC502.1)	01-08-2018	01-08-2018	Blackboard, ppt, notes, blended mini MOOC
3.	HTML 5 and responsive web design with CSS3(ITC502.2)	23-08-2018	23-08-2018	Blackboard, ppt, notes, blended mini MOOC
4.	Rich Internet Application(ITC502.3)	30-08-2018	30-08-2018	Blackboard, ppt
5.	Server Side Programming: PHP (ITC502.4)	18-09-2018	18-09-2018	Blackboard, notes
6.	Web extensions and web services (ITC502.5)	26-09-2018	26-09-2018	Blackboard, notes
7.	Python web framework: Django (ITC502.6)	28-09-2018	28-09-2018	Blackboard, Demonstration

Date wise lecture plan

Date	Topic Taught	Date	Topic Taught
02-07-2018	Introduction to course, CO and Introduction to OSI layers, URL	04-07-2018	Web system architecture, DNS, Cross browser compatibility issues
05-07-2018	Overview of HTTP, FTP and W3C validators	11-07-2018	HTML formatting and fonts, images
17-07-2018	Anchors, Lists	18-07-2018	Tables and frames
19-07-2018	Forms	20-07-2018	CSS syntax, CSS selectors, inserting CSS in HTML document
24-07-2018	Inheritance in CSS, positioning in CSS	25-07-2018	Javascript language constructs
26-07-2018	Objects in javascript, DOM	27-07-2018	Event handling and form validation
01-08-2018	Form validation and cookies	01-08-2018	Semantic tags of HTML5
02-08-2018	Native audio and video	03-08-2018	Micro data and custom data, accessibility
04-08-2018	Geo location	04-08-2018	Canvas
07-08-2018	Media Queries	08-08-2018	Fluid layouts
18-08-2018	CSS3 selectors	18-08-2018	CSS 3 typography and color modes
18-08-2018	Stunning aesthetics with CSS3	21-08-2018	CSS 3 transitions and transformations
23-08-2018	CSS3 animations	24-08-2018	Characteristics of RIA
28-08-2018	AJAX vs. traditional approach, Rich UI using AJAX	29-08-2018	Creating data in JSON format, JSON parser
30-08-2018	Web mashup ecosystem	30-08-2018	Mashing up with JSON
31-08-2018	Introduction to PHP and data types, control structures	06-09-2018	Built-in functions of PHP
11-09-2018	PHP session tracking	12-09-2018	PHP and MySQL database connectivity
18-09-2018	PHP and MySQL database connectivity, introduction to PHP frameworks	19-09-2018	Introduction to XML, DTD
21-09-2018	Introduction to XSL and XSLT	25-09-2018	Evolution and differences with distributed computing, WSDL, SOAP, UDDI
26-09-2018	REST-ful web services, Resource Oriented Architecture	27-09-2018	Introduction to Django, Features of Django
28-09-2018	Demonstration of Hello World Application in Django		

8.Lab Plan

		Batch	Planned Dates	Actual Dates	Relevant CO
1	Problem selection and group formation	A	17/7/18	17/7/18	-
		B	16/7/18	16/7/18	-
		C	20/7/18	20/7/18	-
		D	19/7/18	19/7/18	-
2	Front end design of the website	A	24/7/18	24/7/18	ITL501.2
		B	30/7/18	30/7/18	ITL501.2
		C	26/7/18	26/7/18	ITL501.2
		D	27/7/18	27/7/18	ITL501.2
3	Front end design of the website	A	2/8/18	2/8/18	ITL501.2
		B	4/8/18	4/8/18	ITL501.2
		C	31/7/18	31/7/18	ITL501.2
		D	3/8/18	3/8/18	ITL501.2
4	Responsive website design	A	23/8/18	23/8/18	ITL501.1
		B	23/7/18	6/8/18	ITL501.1
		C	7/8/18	7/8/18	ITL501.1
		D	10/8/18	10/8/18	ITL501.1
5	RIA design	A	30/8/18	30/8/18	ITL501.3
		B	20/8/18	20/8/18	ITL501.3
		C	21/8/18	21/8/18	ITL501.3
		D	24/8/18	24/8/18	ITL501.3
6	Database Connectivity	A	6/9/18	6/9/18	ITL501.4
		B	27/8/18	27/8/18	ITL501.4
		C	11/9/18	11/9/18	ITL501.4
		D	31/8/18	31/8/18	ITL501.4
7	Project Demonstration and report writing	A	27/9/18	27/9/18	-
		B	24/9/18	24/9/18	-
		C	25/9/18	25/9/18	-
		D	7/9/18	7/9/18	-

9.Assignment Plan

Assignment No.	Date	Topics with CO
1	18-09-2018	RIA(ITL501.3)
2	02-10-2018	Django (ITL501.5)

