Model Template for Scheme of Course Work

to be submitted by the Faculty of B.Tech/M.Tech/MCA I semester on or before 11.10.2013 to
bhanucvk@gvpce.ac.in and yadavalliraghu@yahoo.com

SCHEME OF COURSE WORK

Course Details:

Course Title	:Web Technologies		
Course Code	: 13IT2105	L T P C	: 4 1 0 3
Program:	: M.Tech.		
Specialization:	: Software Engineering		
Semester	: I		
Prerequisites	: JAVA		
Courses to which it is a prerequisite	: --		

Course Outcomes (COs):

1	Describe and explain the relationship among HTML, XHTML, CSS, JavaScript, XML and other web technologies
2	Create and publish advanced HTML pages with the help of frames, scripting languages, and CSS
3	Understand and use JavaScript variables, control structures, functions, arrays, and objects
4	Understand and develop XML Technologies such as XML Schemas, XSLT
5	Understand and develop Server-Side Programming using Servlets and JSP's, develop web pages using AJAX and PHP

Program Outcomes (POs):

A graduate of software engineering will be able to

1	Ability to plan and execute software project modules, testing and delivery mechanisms
2	Ability to use industry ready modern technologies through advanced data structures, expertise in web technologies
3	Ability to think critically on the software related issues to provide viable solutions
4	Ability to solve software related problems effectively and efficiently
5	Ability to conduct research on up-coming fields of software development and to innovate into new directions
6	Ability to work as a effective team member in a collaborative and multidisciplinary works to create new computing mechanisms
7	Ability to manage a software team and to maintain financial records as per standards.
8	Ability to effectively communicate with clients, peers and society at large
9	Ability to take up lifelong learning to be in tune with the new software related technologies
10	Ability to follow ethical practices in the software industry and accept social responsibility
11	Ability to learn independently from mistakes and surge forwards with positive attitude

Course Outcome Versus **Program Outcomes:**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO-1		S	M	M					M			
CO-2	S								M			
CO-3		S		M					M			
CO-4		S	M	M								
CO-5		S		M								

S - Strongly correlated, *M - Moderately* correlated, *Blank - No correlation*

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Assessment Methods:	Assignment / Quiz / Seminar / Case Study / Mid-Test / End Exam

Teaching-Learning and Evaluation

Week	TOPIC / CONTENTS	Course Outcomes	Sample questions	TEACHING-LEARNING STRATEGY	Assessment Method & Schedule
1	**HTML Common tags**: List, Tables, images,	CO-1	Design an online book store using all HTML tags	▫ Lecture / Discussion ▫ Program execution	Assignment (Week 2 - 4)
2	**HTML Common tags:** forms, Frames; Cascading Style sheets.				
3	**Java Scripts:** Introduction to Java Scripts, Objects in Java Script, Dynamic HTML with Java Script.	CO-1&2	Validate the online book store web pages using Java Scripts	▫ Lecture ▫ Problem solving	Mid-Test 1 (Week 9)
4	**XML**: Document type definition, XML Schemas, Document Object model	CO-4	Design 10 student records and store information using XML	▫ Lecture ▫ Problem solving ▫ Program execution	
5	**XML:** Presenting XML, Using XML Processors: DOM and SAX				
6	**Java Beans**: Introduction to Java Beans, Advantages of Java Beans, BDK Introspection, Using Bound properties, Bean Info Interface, Constrained properties Persistence, Customizes, Java Beans API	CO-1 & 3	Design a calculator java bean	▫ Lecture ▫ Problem solving ▫ Program execution	Quiz (Week 2 - 4) Mid-Test 1 (Week 9)
7	**Java Beans**: Introduction to EJB's				
8	**Web Servers:** Introduction to Servlets: Lifecycle of a Servlet, JSDK, The Servlet API, The javax.servlet Package, Reading Servlet parameters	CO-5	What is life cycle of a servlet	▫ Lecture / Discussion ▫ Program execution	
9	**Mid-Test 1**				
10	**Web Servers:** The javax.servlet HTTP package, Handling Http Request & Responses, Using Cookies-Session Tracking, Security Issues.	CO-5	Explain the javax.servlet HTTP package	▫ Lecture ▫ Discussion ▫ Problem solving	Mid-Test 2 (Week 18)
11	**Introduction to JSP**: The Problem with Servlet. The Anatomy of a JSP Page, JSP Processing. JSP Application Design with MVC Setting Up and JSP Environment:	CO-3 & 5	Explain the anatomy of a JSP page	▫ Lecture ▫ Problem solving	Case Study (Week 10 - 14)
12	**Introduction to JSP**: Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat.	CO-3 & 5	Explain JSDK	▫ Lecture ▫ Problem solving	
13	**JSP Application Development:** Generating Dynamic Content, Using Scripting Elements Implicit JSP Objects	CO-4	Generate Dynamic Content using JSP's	▫ Lecture ▫ Discussion	
14	**JSP Application Development:** Conditional Processing – Displaying Values Using an Expression to Set an Attribute, Declaring Variables and Methods Error Handling and Debugging Sharing Data Between JSP pages, Requests, and	CO-4	Expain error Handling and Debugging Sharing Data Between JSP pages	▫ Lecture ▫ Discussion	
15	**JSP Application Development:** Users Passing Control and Date between Pages – Sharing Session and Application Data – Memory Usage Considerations.	CO-4	Expain error Handling and Debugging Sharing Data Between JSP pages	▫ Lecture ▫ Problem solving ▫ Program execution	Seminar (Week 15)

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16	**Database Access:** Database Programming using JDBC, Studying Javax.sql.* package, Accessing a Database from a JSP Page, Application – Specific Database Actions,	CO-5	Explain Database Programming using JDBC	▫ Lecture ▫ Problem solving ▫ Program execution	
17	**Database Access:** Deploying JAVA Beans in a JSP Page, Introduction to struts framework.	CO-5	Explain Deploying JAVA Beans in a JSP Page	▫ Lecture ▫ Problem solving ▫ Program execution	
18	**Mid-Test 2**				
19/20	**END EXAM**				