

WORKSPACE WEB DEVELOPMENT & OUTSOURCING TRAINING CENTER

Course Outline (2014)

Advanced Web Technology

Workspace Web Development & Outsourcing Training center

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Course Hours	56
Total days	16
Prerequisite	Minimum Idea of Web programming
Class day	Normally Thursday/ Friday / Saturday/ Sunday (Normally 2 days per week)

COURSE DESCRIPTION

This course introduces students with most of the relevant programming languages and techniques of professional web development and web engineering techniques to build dynamic websites with HTML, XHTML, XML and with Linux, Apache, MySQL, and PHP (Yii, Codeigniter) , one of today's most popular frameworks, how to structure pages with XHTML and CSS, how to program in JavaScript and PHP, how to configure Apache and MySQL, how to design and query databases with SQL, how to use Ajax with both XML and JSON, what is an MVC framework and how to setup a PHP framework e.g., Yii or CodeIgniter.

OBJECTIVES

At the end of the course, the students will be able to:

- At the end of the course, the following objectives shall have been attained:
- Appreciate the increasing importance of Web technology and how it is changing the role of the information technology.
- Understand what strategic web development is and apply a framework to help identify strategic uses of Internet.
- Compare the fundamental types of web technologies and how they can be used to provide real business benefit.
- Explore new technologies and issues affecting the web development.
- Apply a web development approach in analyzing the role of web technology in organizations.
- Describe the process used in developing information systems and the concepts of web engineering and web process reengineering.
- Analyze the skills needed for web development professionals.
- *Ready to apply for any job where need web technology.*

TOPICS TO BE COVERED

TOPICS	SPECIFIC OBJECTIVE(S)	TIME FRAME	SUGGESTED ACTIVITIES	TEACHING STRATEGY(S)
HTML & HTTP, XML, XPath, XSLT	Informing the students about web technology and how it can help in the Business World. Discussing the use of XPath and formatting XML with XSLT.	Week 1	Homework on HTML. Developing personal website.	Lecture notes, question
PHP, MySQL	Discussing and teach advance PHP.	Week 2	Lecture, Lab Work and Assignments	Lecture notes, question
PHP & MySQL, Working with API	Discussing the advance use and importance of Database & PHP. Practice how to work with different API.	Week 3	Homework, Mini-project	Lecture notes, question
JavaScript, Ajax, Jquery	Discuss and practice the use and importance of advance JavaScript. Discussing advantages of using JavaScript through Ajax	Week 4	Lecture, Lab Work and Assignments	Lecture notes, question
Test Project				
User Interfaces, MVC, Php Framework (Codeigniter/Yii)	Discussing the use of CSS to apply style to a HTML document. Discussing the advantages and importance of MVC architecture	Week 5	Lecture, Lab Work and Assignments	Lecture notes, question

MVC(Continued), Php Framework (Codeigniter/Yii)	Discussion and Implementation of Php Framework.	Week 6	Lecture, Lab Work and Assignments	Lecture notes, question
MVC(Continued), Php Framework (Codeigniter/Yii), Security & Scalability	Discussion and Implementation of Php Framework. Discussing the importance of Security in web architecture.	Week 7-8	Homework, Mini-project, Exercise	Lecture notes, question
Final Project Continues				

COURSE REQUIREMENTS

Student Attendance

All students are expected to attend all scheduled classes, and to read all assigned chapters / materials before coming to class.

Class Participation & Peer Evaluation

You Students are expected to participate actively in the class. Your contribution towards your team will be counted too.

TEXTBOOK/ REFERENCES

- W3Schools Online Web Tutorials; URL: <http://www.w3schools.com>
- PHP Documentation; URL: <http://www.php.net/docs.php>
- Sams Teach Yourself Ajax JavaScript and PHP All in One; Phil Ballard and Michael Moncur; Sams Publishing; 2010
- JavaScript Phrasebook; Christian Wenz; Sams Publishing; 2007
- PHP and MySQL Web Development, 4/E; Luke Welling and Laura Thomson; Addison-Wesley Professional; 2009
- Advanced PHP Programming; George Schlossnagle; Sams Publishing; 2004
- Advanced PHP for Web Professionals; Christopher Cosentino; Prentice Hall; 2003
- JavaScript for Programmers Paul J. Deitel and Harvey M. Deitel; Prentice Hall; 2009
- Beginning PHP5, Apache, and MySQL Web Development; Elizabeth Naramore, Jason Gerner, Yann Le Scouarnec, Jeremy Stolz and Michael K. Glass; Wiley Publishing; 2005
- XML in a Nutshell, 3/E; Elliotte Rusty Harold and W. Scott Means; O'Reilly Media; 2004