Uka Tarsadia University

M.Sc. (C.A.)

Content Management Systems (040020302)

3rd Semester

EFFECTIVE FROM JUNE-2012

Uka Tarsadia University

M.Sc. (CA) (3rd Semester) Syllabus, June 2012

Prerequisites: Nil

Aim and Objective: Students can gain an understanding of the basic features of the content management systems using PHP, MySQL and Joomla.

Paper No.: 040020302   **Subject: Content Management Systems**

Total: 48 hrs.   **[Lectures: 4, Tutorial: 0, Practical: 0]**

1. Introduction to Open Source Web based Programming   **[08 hrs.]**

   1.1.   Control Structures, Loops and Arrays

   1.2.   PHP Functions: String Functions, Array Functions, Mathematical Functions, Graphics Library (GD Support), File System Functions and Date and Time Functions

   1.3.   Session Management in PHP

   1.4.   Error Handling

2. Object Oriented Features of PHP   **[08 hrs.]**

   2.1.   Open Source Project Development Process

   2.2.   Classes, Objects and Constructors

   2.3.   Inheritance

   2.4.   Serialization

   2.5.   File and Directory Handling

3. MySQL Database Server   **[08 hrs.]**

   3.1.   Configuring and Starting of MySQL Server

   3.2.   MySQL Tables: Displaying MySQL Database, Adding and removing user access, Checking and fixing database

   3.3.   PHP-MySQL Database connection and data processing functions

   3.4.   Ajax using jQuery

4. Content Management System: Joomla!   **[08 hrs.]**

   4.1.   Introduction and Installation

   4.2.   Getting to Know Joomla!

     4.2.1. Introducing frontend and backend

     4.2.2. The frontend: The website as the user sees it

     4.2.3. Administering your site in the backend

   4.3.   Web Building Basics: Creating a Site in an Hour

     4.3.1. Removing data

     4.3.2. Building your site

   4.4.   Organizing your Content Effectively

4.5.   Adding and Editing Articles

5. Home Pages, Menus, Users and Extensions   **[08 hrs.]**
- 5.1.   Creating Attractive Home Pages
  - 5.1.1. Mastering homepage layout
  - 5.1.2. Creating section and category overview pages: blog layout and list layout
- 5.2.   Managing Menus
  - 5.2.1. Creating a user-friendly navigation
  - 5.2.2. Creating menu links
  - 5.2.3. Creating plain text links
- 5.3.   Enabling Users to Contribute and Interact
  - 5.3.1. Creating user accounts, Allowing visitors to register
  - 5.3.2. Enabling users to rate articles or write comments
- 5.4.   Extending Joomla!
  - 5.4.1. Core extensions and third-party extension
  - 5.4.2. Working with templates

6. Creating a Pure CSS Template   **[08 hrs.]**
- 6.1.   What Is a Joomla Template?
- 6.2.   Localhost Design Process
- 6.3.   W3C and Tableless Design
- 6.4.   Creating a Simple Template
- 6.5.   Using CSS to Create Tableless Layout
- 6.6.   Making a Real Joomla Template

MODES OF TRANSCATION
- ❑ **Lecture method** shall be generally used along with group discussion. It will also be supplemented with various appropriate audio-visual aids.
- ❑ **Activity assignment** will be given to the student to help them learn by doing.

Teacher Activities:
The following activities shall be carried out by the teacher.
1. Installation of PHP and MySQL and Apache Web Server
2. Discussion of recent trends in Open Source Web Based Programming and CMS.
3. Demonstrate other open source CMS Tool like Wordpress or Drupal.

Student Activities:

The following activities shall be carried out by the teacher.
1. Developed a website using PHP, MySQL and Joomla.
2. Study on advance features of Joomla.
3. Study on miscellanies functions in PHP.

[Note: 5% weightage will be given to these activities during evaluation.]

Text Book:
1. Jesus Castagnetto, Professional PHP Programming, Wrox Press Ltd
2. Eric Tiggeler, Joomla! Build and maintain impressive usre-friendly websites the fast and easy way with Joomla! 1.5, Shroff Publishers & Distributors Pvt. Ltd

References Books:
1. lee Babin, Beginning Ajax with PHP - Apress
2. PHP Documentation from http://www.php.net/docs.php
3. Hugh E. Williams, PHP and MySQL, O'Reilly
4. Joomla documentation from http://docs.joomla.org/
5. Barrie M. North, Joomla 1.5: A User's Guide: Building a Successful Joomla! Powered Website, Prentice Hall
6. Stephen Burge, Joomla! Explained: Your Step-by-Step Guide, Addison-Wesley Professional