

UKA TARSADIA UNIVERSITY
M.C.A. (3rd Semester) Syllabus, 2024-2025

Course Code: CS8027

Course Title: Content Management System using WordPress

Course Credits: [Lecture: 03, Tutorial: 00, Practical: 01]

Prerequisites: Fundamentals of Programming, Foundations of Object-Oriented Programming, Essentials of Advanced Object-Oriented Programming.

Objectives: To introduce the concepts of Content Management System (CMS) to develop, customize, and maintain CMS sites using open-source CMS framework.

Course Outcomes: Upon completion of the course, students shall be able to

C01: Recognize the need for CMS, types, processes, its file structure along with configuration environment.

C02: Design, develop, and secure single and multisite in CMS.

C03: Design and develop content for social media platforms such as wikis and blogs along with content and data management.

C04: Integrate and develop customized features, and plugins to enhance the CMS functionalities.

C05: Implement and design tailored features and themes to optimize CMS capabilities.

C06: Develop best practices for secure content management and user authentication.

Course Objective and Course Outcomes Mapping:

- To introduce the concepts of Content Management Systems (CMS): C01, C02, C06
- To develop, customize, and maintain CMS sites using open-source CMS framework, front-end and back-end scripting.: C03, C04, C05

Programme Outcomes: The student will have

PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.

PO2: Ability to design, develop, test, and maintain system, component, product, or process as per needs and specifications.

PO3: Understanding of professional and ethical roles and responsibilities.

PO4: Recognition of the need for and an ability towards life-long learning.

PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web & Mobile technology and relevant modern issues.

PO6: Ability to demonstrate the use of modern tools, models, and languages to solve problems related to software development.

PO7: An ability to communicate and present knowledge effectively.

Programme Outcomes and Course Outcomes mapping:

Course Outcomes	Programme Outcomes						
	P01	P02	P03	P04	P05	P06	P07
C01	✓	✓		✓	✓	✓	✓
C02		✓		✓			✓
C03					✓	✓	✓
C04			✓		✓	✓	✓
C05					✓	✓	✓
C06					✓	✓	✓

Curriculum Unit Titles

Units	Unit Description	Weightage
1	Content Management System <ul style="list-style-type: none">1.1. Introduction and Need1.2. Site Development: Essentials, Types: ECMS, WCMS, Components, Process1.3. Site Stack holders: Types, Roles, and Capabilities1.4. Directory and File Structure: Overview, File Types and Utility1.5. Configuration Environment Management: Single site and Multisite1.6. Core System: Functions and Working	[15%]
2	Content and Data Management <ul style="list-style-type: none">2.1. Data Management: Schema Reusability and Extension2.2. Custom Post Types Post: Types, Registration, Customization, Functions2.3. Taxonomy: Structure and Relationships, Types, Creation, Metadata Operation2.4. Blog Content Creation, Wikis2.5. Webpage Enhancement: Pages, Menus, Media Library Integration2.6. Content Categorization: Web Parts Organization	[15%]
3	Feeds, Podcasting, Social Media Integration <ul style="list-style-type: none">3.1. General Site and Profile Settings3.2. Feeds: Overview, Built-In, and Custom3.3. Podcasting3.4. Social Media Integration	[20%]
4	Plugin Development <ul style="list-style-type: none">4.1. Plugin Packaging4.2. Plugin Security4.3. Hooks: Actions and Filters4.4. WordPress Plugin Integration	[20%]
5	Theme Development <ul style="list-style-type: none">5.1. Concepts and Essentials5.2. Theme Configuration5.3. Custom Theme Creation5.4. Custom Page Templates5.5. Theme Enhancement: Menu, Widget, Post	[15%]
6	Securing WordPress <ul style="list-style-type: none">6.1. Security Principles6.2. Security Plugins6.3. Application Framework: Overview	[15%]

Course Units and Course Outcomes Mapping:

Unit No.	Unit	Course Outcomes					
		C01	C02	C03	C04	C05	C06
1	Content Management System	✓					
2	Content and Data Management	✓	✓				
3	Feeds, Podcasting, Social Media Integration			✓			
4	Plugin Development				✓		
5	Theme Development					✓	
6	Securing WordPress						✓

Computing Environment:

A student must have the following computing environment in the laboratory and/or on his/her laptop.

- CE#1: XAMPP
- CE#2: MySQL
- CE#3: NetBeans
- CE#4: WordPress

Text Books

1. Brad Williams, "Professional WordPress Design and Development", Wrox Pub, John Wiley & Sons, Inc.

References :

1. Karol Krol, "WordPress 4.x Complete", PACKT Pub.
2. Aaron Brazell, "WordPress Bible", Wiley Pub, Inc.
3. <https://wordpress.org/support/>
4. <https://www.wpbeginner.com/wordpress-seo/>