STUDY GUIDE
DIGITAL CONTENT MANAGEMENT SYSTEMS
DCMS412
SAQA ID: 78965

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2024

Table of Contents

Digital Content Management Systems (DCMS412)

1. How to use this guide

The guide provides an overview of the syllabus and the learning outcomes of the module. It will indicate each major topic that will be covered, as well as the learning outcomes of each topic.

The study guide is NOT a replacement of textbooks and should be studied in conjunction with the required textbooks.

The following icons will be used in the study guide:

	Sections in the prescribed textbook that the student needs to study
	Additional reading that the student needs to study
	Video that the student needs to watch
	Activities to be completed
	Exercises to be completed
	Group activities to be completed
	Projects to be completed
	Tests to be completed
	Revision questions to be completed

2. Introduction

Welcome to the wonderful world of WordPress! In this digital age, having an online presence is crucial, whether you're an aspiring blogger, a small business owner, or even a student eager to showcase your work and passions. WordPress is an incredibly versatile and user-friendly platform that empowers individuals to create stunning websites and share their ideas with the world. In this introduction, I'll provide you with a glimpse into the boundless possibilities that await you on this platform.

WordPress is not just a blogging platform; it's a powerful content management system (CMS) that drives over 40% of websites on the internet. Its extensive range of themes, plugins, and customizable options allow you to create a unique and professional website tailored to your specific needs. Whether you're a beginner or a seasoned web developer, WordPress offers a seamless interface that empowers you to take control of your online presence without the need for extensive coding knowledge.

One of the most remarkable aspects of WordPress is its versatility. Whether you want to create a personal blog, an online portfolio, an e-commerce store, or a community forum, WordPress has you covered. With thousands of themes to choose from, you can effortlessly customize the look and feel of your website to reflect your personality or brand. Additionally, the vast plugin library allows you to enhance your website's functionality and add features such as contact forms, social media integration, search engine optimization (SEO), and much more.

2.1. Department Information

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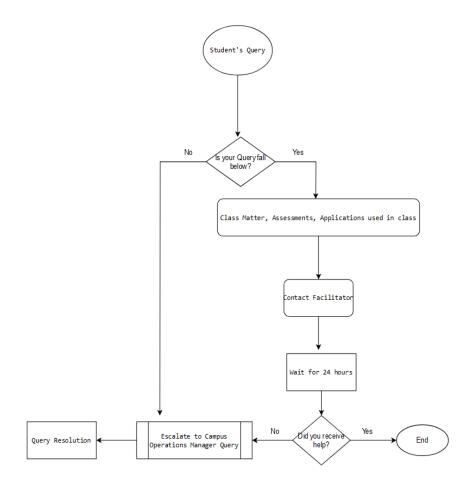
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2.2. Query Resolution Structure

3. Purpose of the Module

The purpose of this module is to provide students with practical knowledge of WordPress which is a valuable development platform for UI design students, as it combines the power of web development with the ability to create visually appealing user interfaces.

3.1. Contact Hours and Indicative Student Workload

Proposed Roll Out Strategy	Credits	Total Notional Hours	Theory	Practical	Contact Sessions	Formative Assessments	Summative Assessments
22 July to 22 November 2024	14	140					

3.2.   Unit Standards

- Demonstrate an understanding of creating multimedia/web-based computer applications with scripting.
- Work as a project team member.

3.3.   Learning Outcomes

- Demonstrate an understanding of creating multimedia/web-based computer applications with scripting.
- Work as a project team member.
- Implement a solution.
- Describe basic object-oriented terminology.

3.4.   Credits: 14

3.5.   NQF: 4

4. Teaching and Learning Methods

Lectures, Flipped Classroom, Webinars, Group and Research, practical classes (role play), and Gamification.

4.1.   Module Resources

- Student module manual referencing a variety of sources.
- Online sources for research purposes

4.2.   Internet Requirements

A device and a minimum of 20GB data are required to access training material.

4.3.   Prescribed reading

Ratnayake, R.M. 2020. WordPress 5 Cookbook. Available on Safari Books Online at:

https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/

Dodson, I. 2016. The Art of Digital Marketing. Wiley. Available on Safari Books Online at:

https://learning.oreilly.com/library/view/the-art-of/9781119265702/c01.xhtml#

4.4. Additional reading

Google. (n.d.). Connect with customers over mobile. Retrieved January 20, 2020, from learndigital.with google:

https://learndigital.withgoogle.com/digitalskills/course/connect-with-mobile

Google. (ND). Make sure customers find you online. Retrieved 20 January, 2020, from Learndigital.with google: https://learndigital.withgoogle.com/digitalskills/course/become-searchable-online

Google. (ND). Promote a business with online advertising. Retrieved January 20, 2020, from learndigital.withgoogle: https://learndigital.withgoogle.com/digitalskills/course/promote-business-online

Moriuchi, E. (2019). Social Media Marketing, Second Edition. Business Expert Press.

https://learning.oreilly.com/library/view/social-media-marketing/9781948976794/

5. Assessment Details

The students will need a pass mark of 80% on the preliminary exam to qualify for admission to the international certification exams.

5.1. Formative Assessment Breakdown

Formative 1	Formative 2
Practical Project 1 + Test 1	Practical Project 2 + Test 2
Client Website	Online Portfolio
25%	25%

5.2. Summative Assessment

Practical exam
50%

Formative assessments (50%) + Summative assessment (50%) = Final mark

5.3.   Assessment Preparation Guidelines

Assessment	Format of the Assessment	Resources required	Learning Units Covered
Formative Assessment 1:	All the projects to be completed require students to practically apply acquired knowledge of WordPress. Students are required to complete practical assignments to assist in gaining a working knowledge of industry standard software.	Access to: • Access to online sources for research purposes	• Demonstrate an understanding of creating multimedia/web-based computer applications with scripting. • Work as a project team member. • Implement a solution. • Describe basic object-oriented terminology.
Formative Assessment 2:	All the projects to be completed require students to practically apply acquired knowledge of WordPress. Students are required to complete practical assignments to assist in gaining a working knowledge of industry standard software.	Access to: • Access to online sources for research purposes	• Demonstrate an understanding of creating multimedia/web-based computer applications with scripting. • Work as a project team member. • Implement a solution. • Describe basic object-oriented terminology.
Summative Assessment:	The project to be completed require students to practically apply acquired knowledge of WordPress. Students are required to complete practical assignments to assist in gaining a working knowledge of industry standard software.	Access to: • Access to online sources for research purposes	• Demonstrate an understanding of creating multimedia/web-based computer applications with scripting. • Work as a project team member. • Implement a solution. • Describe basic object-oriented terminology.

5.4.   Assessment Release and Submission Week

The students will need a mark of 70% for each Formative to be deemed Competent.

Please note – There are two (2) steps in the submission process.

- Step 1: Required evidence in the specified formats is submitted on Campus Online to the designated assignment description. NB!!! It is your responsibility to ensure that you submit in the right slot.
- Step 2: Complete and submit the document of authenticity for every formative and summative assessment submitted.

5.5.   Assessment Strategy

The following assessment activities apply to each module:

•   Knowledge assessments

•   Practical / Research Assignments

•   CCFOs (Critical Cross-Field Outcomes) / Simulated case studies

•   Work Integrated Logbooks

5.6.   Formative Assessment Submissions

Formative Assessment:	Release Date:	Submission:
Formative Assessment 1	**Project:** 05 August 2024 **Test:** 27 August 2024	**Project:** 30 October 2024 **Test:** 27 August 2024
Formative Assessment 2	**Project:** 02 September 2024 **Test:** 01 October 2024	**Project:** 04 October 2024 **Test:** 01 October 2024

5.7.   Summative Assessment Submission

Summative Assessment:	Release Date:	Submission:
Practical Examination	11 November 2024	15 November 2024

5.8.   International Exams

International Exam:	Bootcamp, International Exam Preparation and Prelims:	International Exam:
NA	NA	NA

6. Progression

Projects that need to be completed and submitted for this module are set up to simulate the design process as applied in the industry. Each project description includes a guideline indicating phases in the project. These phases as indicated serve as a guide to assist in your planning and implementation of activities to ensure adherence to project deadlines. The projects in general span over several weeks and sessions are indicated in your lesson plan. You will be required to present specified evidence during each session. During these consultation sessions, you will receive feedback from the facilitator that should indicate additional development or alternative directions. Your ability to act on these directions is assessed under the assessment criteria of 'progress'.

You will be required to spend additional time outside of scheduled classes to successfully develop and complete assignments.

7. Week Planner

SEMESTER 2	
22-26/07/2024	Week 1
29/07-02/08/2024	Week 2
05-09/08/2024	Week 3
12-16/08/2024	Week 4
19-23/08/2024	Week 5
26-30/08/2024	Week 6
02-06/09/2024	Week 7
09-13/09/2024	Week 8
16-20/09/2024	Week 9
23-27/09/2024	Student Holiday
30/09-04/10/2024	Week 10
07-11/10/2024	Week 11
14-18/10/2024	Week 12 International Exam Preparation and Prelims
21-25/10/2024	Week 13 International Exam Preparation and Prelims
28/10-01/11/2024	Week 14 2nd Semester International Exams
04-08/11/2024	Week 15 Exam Preparation
11-15/11/2024	Exam Week 1
18-22/11/2024	Exam Week 2
25/11/2024	Student Holiday Starts

8. Lesson Plan

Semester 2			
Week	**Learning Units to be Covered**	**Resources required**	**Class Activity**
Week 1	Introduction to Semester 2	Study Guide Access to O'Reilly Books Online	Account activation and resource download
Week 2	Introduction to Digital Content Management Systems	Online sources for research purposes Microsoft 365	
Week 3	Setting Up WordPress and Customizing Settings FA1 – Project Hand-Out	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/cb449f75-0676-4fad-b487-bc067b558fc7.xhtml	Revision questions 1 Practical activity 1 Facilitator to assist and guide students working on their projects
Week 4	Using Plugins and Widgets	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/03cb9a5f-57e4-4db2-ae90-4789dba35680.xhtml	Revision questions 2 Practical activity 2 Facilitator to assist and guide students working on their projects
Week 5	Managing Users and Permissions	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/ba657354-32e6-46d1-9b11-1ae59e2d3b6a.xhtml	Revision questions 3 Practical activity 3 Facilitator to assist and guide students working on their projects
Week 6	FA1 – Project Submission FA1 - Test		
Week 7	Setting up a Blogging and Editorial Workflow FA2 – Project Hand-Out	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/ba657354-32e6-46d1-9b11-1ae59e2d3b6a.xhtml	Revision questions 4 Practical activity 4 Facilitator to assist and guide students working on their projects
Week 8	WordPress as an Application Framework	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/018bac87-faf0-4927-b60f-8f9250504659.xhtml	Revision questions 5 Practical activity 5

Semester 2			
Week	Learning Units to be Covered	Resources required	Class Activity
			Facilitator to assist and guide students working on their projects
Week 9	Handling Performance and Maintenance	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/8c826590-0299-433b-90a1-f803d21aa6d7.xhtml	Revision questions 6 Practical activity 6 Facilitator to assist and guide students working on their projects
Week 10	Improving Site Security	https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/f7d9b496-f7ea-47fa-a6bc-b84e8245a4e4.xhtml	Revision questions 7 Class Exercise
Week 11	FA2 – Project Submission FA2 - Test		
Week 12	International Examination Bootcamp and Prelim Week		
Week 13	Prelim Week		
Week 14	International Examination		
Week 15	National Examination Preparation		
Week 16	Summative Assessments		
Week 17	Summative Assessments		

8.1. Module Content

Module Content	
LU 1	**Setting Up WordPress and Customizing Settings**

Learning Objectives:

In this chapter, we will begin by focusing on the basic setup and configuration options that are built into the default WordPress Content Management System (CMS). We will be going through basic setups such as managing media files, discussions, privacy policies, and permalinks. Also, we will look at the process of setting up and using multisite environment features within WordPress. The goal of this chapter is to teach you how to prepare basic WordPress tools so that you can manage advanced tasks in the upcoming chapters.
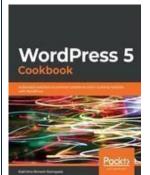
- Managing media files with the Media Library
- Setting up the discussion process
- Creating and managing a privacy policy
- Customizing default WordPress emails
- Configuring a Permalinks structure
- Setting up WordPress Multisite
- Creating a new site on a multisite network
- Managing multisite themes and plugins
- Cloning a site in a multisite installation

Prescribed reading:

Rakhitha Nimesh Ratnayake (2020). WordPress 5 Cookbook. Chapter 1. Available on Safari Books Online at:
https://learning.oreilly.com/library/view/wordpress-5https://learning.oreilly.com/library/view/wordpress-5-cookbook/9781838986506/cb449f750676-4fad-b487-bc067b558fc7.xhtmlcookbook/9781838986506/cb449f75-0676-4fad-b487bc067b558fc7.xhtml
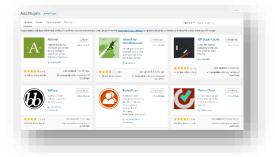
Practical activity 1

Show the steps on how to setup WordPress on your device These steps need to include instruction on how to install in on your Computer Answer: The Installation process can be different for every student depending on what operating system they use.
https://themeisle.com/blog/install-xampp-and-wordpress-locally/

Module Content

LU 2	**Using Plugins and Widgets**

Introduction:

The WordPress theme is the core feature behind what we see on the frontend of the site. The theme contains a collection of standard templates as well as theme-specific templates to manage the frontend screens. This chapter focuses on using standard theme features as well as creating custom features through child themes and custom templates. The standard theme features include customizers, menus, and built-in theme options. After reading this chapter, you will no longer be restricted to the default functionality of a theme. You will gain the skills to change the basic elements of a site using a customizer as well as create and use various custom templates in order to handle advanced requirements. Also, you will learn how to keep the customizations independent from your theme to keep them compatible with version upgrades.

Learning Objectives:

- Managing widgets in widget areas
- Creating a simple widget from scratch
- Creating additional widget areas
- Displaying conditional widgets with built-in tags
- Displaying widgets inside of posts and pages
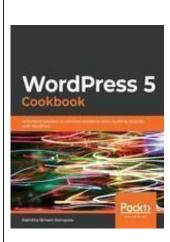- Modifying plugin files with the built-in Plugin Editor

Practical activity 2

Instructions

You are creating a portfolio for yourself using WordPress you would need to follow the following instructions to complete the portfolio website

1. Choose any theme of your chose using WordPress
2. Customize the website to your liking
3. Make use of one widget on the website
4. Make use of one plugin on the website
5. Upload your CV to the website

Make use only of your own IMG to avoid copyright problems

Module Content

LU 3	Managing Users and Permissions

Introduction:

User management is a core WordPress module. The built-in features provide functionality for new user registrations, login, searchable user lists, and basic profile data management. However, we will need advanced user management capabilities for sites beyond basic blogs. Forums, social networks, and e-commerce sites are some of the types of sites where user management plays a vital role in functionality. In such sites, we need to fine-tune permission management beyond basic user roles and capabilities. We also have to make sure that we only allow verified users to use the site as members. The ability to bring backend user functionality to the frontend is also essential in order to simplify the process for users who are not familiar with WordPress.
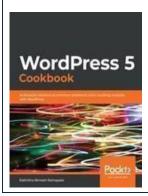
Learning Objectives:

- Encapsulation
- Inheritance
- Polymorphism
- Constructor and Methods
- Arrays

Practical activity 3

Instructions

You are creating a blog for yourself which will be explaining what you have learned so far in Word Press.

1. Choose any theme of your chose using WordPress.
2. Customize the website to your liking.
3. Create 3 pages Home, WordPress, Contact.
4. Create a basic form you are allowed to use Google forms.
5. The website would need to be responsive.
6. Test the website on any 3 devices of your choice.

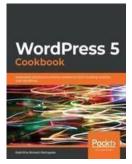| **LU 4**	**Setting up a Blogging and Editorial Workflow**
 	Introduction Blogging has been one of the primary features of the WordPress platform from the start. We can use default posts or create a custom post type for blogging. A blog is a place where content is added and updated by a single user or a set of authors. The default post-publishing process is built to cater to personal blogging or handle the basic processes of a multi-author blog. **Learning Objectives:** - Publishing and scheduling blog posts - Displaying author profiles in posts - Enabling frontend post publishing - Modifying a user list to show author publishing details - Managing custom post statuses **Practical activity 4** Using different plugins compare the following: - Which plugin is best for blogging - Which plugin is best for blog security - Which plugin is best for blog maintenance - Which three themes are best for blog and different post - Add a comment and rating system to a blog
LU 5	**WordPress as an Application Framework**
 	Introduction Generally, we use full-stack development frameworks such as Laravel, CodeIgniter, and Zend for developing advanced applications. These frameworks provide a set of modules as a base structure where we can build applications on top of it. The core modules in development frameworks include routing, template management, database layer abstraction, security, user management, validations, error handling, and many more. We can use these modules to speed up the development process instead of coding everything from scratch. WordPress was introduced as a blogging tool and transformed into the most popular content management system out there. However, it was not built as a web application framework. **Practical activity 5** Select a template and add the following aspects: A header and footer plugin

	• A plugin for form handling • Using the features let the form data be stored within a database and be displayed on an admin page
LU 6	**Handling Performance and Maintenance**
	Introduction Performance and maintenance are two key non-functional aspects that contribute to the success of a site. We discussed several ways of improving performance in Chapter 10, Troubleshooting WordPress, in the Fixing slow WordPress sites recipe. We will be further improving the performance by limiting the unnecessary data as well as cleaning unused data from the database. So applying solutions to many of the problems doesn't require the assistance of a developer. **Learning Objectives:** • Creating and scheduling database backups • Restoring database backups • Tracking site activities • Identifying and resolving broken links • Backing up site files and uploads • Cleaning unused data from the database • Setting up maintenance mode **Practical activity 6** Discuss and research the following: • What are the biggest security risks with using WordPress • Research 3 plugins for the best security and risk management • Research 3 backup plugins • Explain how themes and templates are secured on wordpress

LU 7	Improving Site Security
	Introduction The security of a website has a broader scope than many people think. Keeping a site secured is important for continuing the uninterrupted flow of site features as well as building the trust of site users. The importance of site security varies based on the type of site, the data involved, and the sensitivity of that data. The security of the read-only blog may not be as important as the security of private membership sites containing users' personal details. **Learning Objectives:** • Upgrading the WordPress version • Disabling plugin and theme file editing • Protecting backend logins by limiting login attempts • Creating automatically expiring user passwords • Securing user accounts • Forcing logout for all users **Revision Exercise** • Add 5 users each with different roles • Login and screenshots each users different roles • Log all users off wordpress • Roll over to a newer version of wordpress
LU 8	**Troubleshooting WordPress**
	Introduction WordPress is one of the simplest content management systems you can use to set up and build a site. However, as with any other site, you may come across various kinds of issues at some point in time. Many existing WordPress sites are built on top of core features or built using existing plugins and themes, so web developers are not involved in building and maintaining the site. Therefore, resolving problems becomes a significant issue for administrators without the necessary technical knowledge. However, most issues are caused due to well-known reasons, so applying solutions to many of the problems doesn't require the assistance of a developer. **Learning Objectives:** • Enabling new user registrations • Configuring error logs and displaying errors

	- Fixing the White Screen of Death (WSoD) - Resolving conflicts in maintenance mode - Manually resetting user passwords **Class Activity :** The objective of this easy WordPress activity for students is to familiarize them with the basic features of WordPress and empower them to create their own websites. By the end of the activity, students should be able to set up a WordPress.com account, select and customize a theme, create pages and add content, customize the site's menu, publish their website, and maintain and update it over time. This objective aims to promote students' digital literacy, creativity, and self-expression while developing skills in web design, content creation, and online communication.
LU 9	**Customizing Theme Design and Layout**
	Introduction The WordPress theme is the core feature behind what we see on the frontend of the site. The theme contains a collection of standard templates as well as theme-specific templates to manage the frontend screens. This chapter focuses on using standard theme features as well as creating custom features through child themes and custom templates. The standard theme features include customizers, menus, and built-in theme options. After reading this chapter, you will no longer be restricted to the default functionality of a theme. You will gain the skills to change the basic elements of a site using a customizer as well as create and use various custom templates in order to handle advanced requirements. Also, you will learn how to keep the customizations independent from your theme to keep them compatible with version upgrades. **Learning Objectives:** - Using the theme customizer - Working with custom CSS in live preview - Using a custom page as a home page - Creating a child theme - Styling navigation menus - Creating conditional navigation menus

9. Bibliography

Dodson, I. (2016). The Art of Digital Marketing. Wiley.

Google. (n.d.). Connect with customers over mobile. Retrieved January 20, 2020, from learndigital.with google: https://learndigital.withgoogle.com/digitalskills/course/connect-with-mobile

Google. (ND). Make sure customers find you online. Retrieved 20 January, 2020, from Learndigital.with google: https://learndigital.withgoogle.com/digitalskills/course/become-searchable-online

Google. (ND). Promote a business with online advertising. Retrieved January 20, 2020, from learndigital.withgoogle: https://learndigital.withgoogle.com/digitalskills/course/promote-business-online

Moriuchi, E. (2019). Social Media Marketing, Second Edition, 2nd Edition. Business Expert Press. https://learning.oreilly.com/library/view/social-media-marketing/9781948976794/

Rakhitha Nimesh Ratnayake (2020). WordPress 5 Cookbook. Chapter 8. Available on Safari Books Online at: https://learning.oreilly.com/library/view/wordpress-5cookbook/9781838986506/262b0eea-fb55-47a0-8cb7c801e9427cf6.xhtml

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