

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY ITE 270 – ADVANCED MULTIMEDIA DEVELOPMENT (3 CR.)

Course Description

Refines multimedia skills, focusing on project development using digital media; video clips, still images, and audio (sounds, music, and narration). Lecture 3 hours per week.

General Course Purpose

This course will teach a student how to create a multimedia website using a Web Content Management Systems [CMS], customize the design using themes, organize posts using custom taxonomies, add advanced capabilities using plugins and/or extensions, and create users with different privileges.

Course Prerequisites/Corequisites

Prerequisite: ITE 170.

Course Objectives

- Explain what a CMS is, how it functions, and how it differs from other methods of creating websites.
- Create a fully functional website using a CMS, including a custom design and advanced functionalities.

Major Topics to be Included

- Intro
 - What is a CMS
 - Comparison of CMS alternatives
- Code Overview
 - Downloading
 - Directory and file structure
 - Configuration
- Working locally
 - Benefits of working locally
 - Setting up a local environment
 - Configuration Details
 - Virtual Machines
 - Deploying Local Changes
- The core
 - What's in the core
 - Using the core as a reference
 - CMS Codex and Code Reference
- The Loop
 - Understanding the loop
 - Template tags
 - Customizing the loop
 - Global variables
 - Working outside the loop
- Data Management
 - Database Schema
 - Table details
 - Direct Database Manipulation

- Custom Post Types, Custom Taxonomies, and MetaData
 - Understanding Data in the CMS
 - Taxonomy
 - Building Your Own Taxonomies
 - MetaData
- Plugin Development
 - Plugin packaging
 - Plugin security
 - Know your hooks: actions and filters
 - Plugin settings
 - CMS Integration
 - Creating a plugin example
 - Publishing to the plugin directory
- Themes
 - Why use a theme
 - Installing a theme
 - Creating your own theme
 - Getting started
 - Dry
 - Content display
 - Additional files
 - Custom page templates
 - Other theme enhancements
 - Theme hierarchy and child themes
 - Premium themes and other theme frameworks
- Crafting a User Experience
 - User experience principles
 - Usability and usability testing
 - Structuring your information
 - Getting your site found
 - How web standards get your data discovered
 - Searching your own site
 - Mobile access and responsive web design
- Securing your CMS
 - Securing your CMS
 - Using roles
 - Recommended security plugins
- CMS real world considerations
 - Is a CMS the right tool
 - Which CMS should you choose
 - Defining content management
 - Workflow and delegation
 - Content organization
 - Interactivity features
 - Scalability
 - Statistics counters
 - Cache management
 - Load balancing
 - Dealing with spam
- CMS Resources

TOPIC	HOURS	PERCENT
Major Topics		
Intro	3	6.67
Code Overview	3	6.67
Working locally	3	6.67

The core	3	6.67
The Loop	3	6.67
Data Management	3	6.67
Custom Post Types, Custom Taxonomies, and MetaData	3	6.67
Plugin Development	6	13.33
Themes	6	13.33
User Experience	3	6.67
Securing the CMS	3	6.67
Real world considerations	3	6.67
CMS resources	3	6.67
Total	45	100