

Course Syllabus: Drupal E-Commerce Platform Development

Course Title:

Building Scalable Online Stores with Drupal

Target Audience:

Ideal for **web developers, entrepreneurs, designers, and IT students** who want to create powerful, customizable e-commerce websites using Drupal. Basic web development (HTML, CSS, PHP) knowledge is recommended.

Course Level:

Comprehensive program covering **Basic, Intermediate, and Advanced** levels.

Duration:

10–12 weeks (flexible for self-paced learning)

Course Description:

This course trains learners to design, develop, and deploy full-featured e-commerce platforms using **Drupal CMS**. Participants will explore **Drupal Commerce, custom module development, theme customization, payment integrations, and security optimization**. The course concludes with a capstone project to build a complete e-commerce website ready for real-world deployment.

Learning Objectives:

Upon completion, students will be able to:

- Understand Drupal's architecture and CMS ecosystem.
- Install, configure, and manage **Drupal Commerce** modules.
- Design and customize e-commerce themes.
- Develop and integrate custom modules for advanced functionality.
- Implement secure payment gateways and shipping systems.

- Optimize performance and manage SEO for online stores.
- Deploy and maintain Drupal-based e-commerce applications.

Course Structure

Part 1: Basic Foundations (Weeks 1–4)

Introduces Drupal fundamentals and e-commerce setup.

- **Week 1:** Introduction to Drupal CMS
 - Drupal overview and architecture
 - Installing Drupal 10 and setting up the environment
 - Exercise: Create a basic Drupal website
- **Week 2:** Drupal Content Management
 - Understanding content types, taxonomy, and menus
 - Hands-on: Build product categories and catalog pages
- **Week 3:** Introduction to Drupal Commerce
 - Installing and configuring Commerce module
 - Product creation, variations, and pricing
 - Exercise: Add products and shopping cart functionality
- **Week 4:** Theming & UI Customization
 - Introduction to Twig templates and theme structure
 - Hands-on Project: Design a responsive storefront theme

Part 2: Intermediate Concepts (Weeks 5–8)

Covers core e-commerce features and integrations.

- **Week 5:** Checkout & Payment Systems
 - Setting up checkout flow

- Integrating payment gateways (PayPal, Stripe, Razorpay)
 - Exercise: Implement secure payment system
- **Week 6: Shipping, Orders & Taxes**
 - Managing shipping methods and tax configurations
 - Customizing order workflows
 - Hands-on: Configure complete order management system
- **Week 7: Custom Module Development**
 - Creating custom modules with PHP
 - Using Drupal APIs and hooks
 - Exercise: Build a discount or coupon system
- **Week 8: User Management & Roles**
 - Configuring user permissions and access control
 - Hands-on Project: Create a vendor-admin portal

Part 3: Advanced & Expert-Level Application (Weeks 9–12)

Focuses on scalability, optimization, and deployment.

- **Week 9: Security & Performance Optimization**
 - Securing Drupal sites (SSL, database protection)
 - Performance tuning and caching strategies
- **Week 10: SEO & Marketing Tools**
 - SEO modules, URL management, and meta tags
 - Integrating analytics and remarketing tools
- **Week 11: Deployment & Maintenance**
 - Migrating to production servers
 - Version control with Git and backup strategies

- **Week 12:** Capstone Project & Future Trends
 - Capstone Project: Build and deploy a complete Drupal e-commerce site
 - Trends: Headless commerce, AI-driven personalization
 - Career Paths: Drupal Developer, E-Commerce Consultant, Full-Stack Web Engineer

Assignments & Grading:

- Weekly Exercises: **25%**
- Intermediate Project (Week 8): **30%**
- Capstone Project: **35%**
- Class Participation & Peer Feedback: **10%**

