

SI635: Content Management Systems: Customization

This 1.5-credit course will introduce students to the concepts behind customizing Content Management platforms. This course is designed to allow a student with some programming knowledge to extend the functionality of a Content management Platform. Students will be able to quickly change the behavior of the Drupal, our prime example, by the end of the semester.

Objectives

- Find and use API's for platform environments, focusing on Drupal.
- Recognize and use best practices for customizing modular code.
- Use abstraction layers to communicate with external services.
- Understand the difference between API's and hooks.
- Be able to use hooks/API's in other platforms.
- Know the implications of using GPL software.
- Write a Drupal module and use the Drupal hook system.

Instructor

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Office Hours

We will have group office hours and toward the end of class, you can book individual office hours at umsi.info/mlh

Pre-requisites

SI 502. Alternately, students will need to have completed a programming course, in any language, that has introduced them to functions, arrays, loops, and basic data types. Students will have to have basic working knowledge of PHP that they acquire on their own if their previous programming instruction was in some other language. Students should also be enrolled in SI 634, or have permission for the instructor.

Meeting Schedule

This course meets on Wednesday's from 10:30-12 noon, in 2255NQ

Teaching Approach

Each session will consist of a mix of lecture and lab time/small group work. Also, I will provide links to existing resources, such as tutorials, documentation, and online communities that are able to assist with questions. You will also be doing exploration on your own. I will give you a task to do and you will have to find out how to do it, the same as if you were working for someone, and they gave you something to do.

Textbook

No formal textbook. There will be readings from select sources; these will be provided in electronic format.

Homework

Some of the homework assignments can be complex. Some weeks may require the full 4.5 hours (this is a 1.5 credit class) of outside class time. Please keep this in mind.

Assignments

There is a hands-on homework assignment associated with each week's material. Generally, this will involve installing a new piece of software and/or customizing some part of it. It is due the following week before class.

Grading

Grades will be determined on the basis of student performance on homework assignments and the final project. The breakdown is below. As this is a lab class, attendance and participation are important.

Item	Weight
Homework	50%
Class participation	30%
Final Project	20%

Final Project

The final project for this class is tied to your SI 634 final project. If you have an override and are not taking SI 634, make sure you talk to me before week 6.

Course Outline

- **PHP review**
- **Drupal hooks and Drupal API's**
- **Drupal and forms**
- **Drupal and web services**
- **Web security**
- **Other platforms**

Academic Integrity Policy

U-M and SI academic integrity policies apply to this course. All submitted work must be your own (or your team's work, for group assignments). This is a team project course, and additionally, students are strongly encouraged to get feedback on their projects from others in the class and outside. Any excerpts from the works written by others must be clearly identified as a quotation, and a proper citation provided. You are free and encouraged to use software modules or styling themes contributed by others; you must acknowledge the source of any such modules you use. Any violation of the School's policy on Academic and Professional Integrity (stated in the Master's and Doctoral Student Handbooks) will result in severe penalties, which might range from failing an assignment, to failing a course, to being expelled from the program, at the discretion of the instructor and the Associate Dean for Academic Affairs.

Accommodations for Students with Disabilities

If you think you need an accommodation for a disability, please let us know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make us aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD (734-763-3000; <http://www.umich.edu/sswd>) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I will treat any information you provide as private and confidential.

Course Policy in Case of Significant Flu Outbreak

If you are suffering from flu-like symptoms, please stay at home until you are fever-free for 24 hours. Email the instructors about any questions you have, or to make alternative arrangements.