

# SYLLABUS

## Website Development | CIS 151 | FALL 2016 | GCC

### COURSE GOAL

Prepare students for entry-level employment as a web developer, web designer, or content manager; proprietorship of a contracted web development service; or continuation towards an Associate's Degree in Computer Information Systems or Marketing.

### CATALOG DESCRIPTION

A full-stack development sprint through five ADDIE stages of website development (Analysis, Design, Development, Implementation and Evaluation). Topics include: scoping and contracting, user-based design, information architecture, managing development projects, and controlling site presentation with template regions, block level elements and Cascading Style Sheets. Students modify HTML code to current standards, manage a website's associated assets, and publish partially-complete WordPress sites to client specifications.

**PREREQUISITES: None. CREDITS: 3**

### STUDENT LEARNING OUTCOMES

Students will design, develop and administer a website with WordPress, applying HTML, CSS, and PHP. Students will:

1. **Analyze** a client's website needs
2. **Design** a website appropriate to those needs.
3. **Develop** and administer the site with WordPress, applying HTML, CSS, and PHP.
4. **Deliver** the site to scope at production quality.
5. **Evaluate** product and process, as we learn by reflection on experience.

### RECOMMENDATION

Take ECommerce (BUS 116) during or before CIS 151. Both are part of the Web Design and Development (WDD) Certificate. ECommerce covers the marketing side of web design. Both courses invite students to build a site for themselves or clients and use it for course assignments when possible.

### MEETINGS

This is a HYBRID course with 2 required in-class Wednesday meeting, September 7th and December 14th, both in E159 from 11am - 12:15pm (stay to 12:45 pm if possible), with other optional online meetings via Google Hangout. We will use Google Apps (and apps tied to Google Accounts) whenever possible to simplify logins.

## ABOUT THE INSTRUCTOR

Martin Bram Moreinis, [moreinism@gss.mass.edu](mailto:moreinism@gss.mass.edu).

Phone: 845-750-2412

Office Hours: scheduled via email, held via [Google Hangout](#).

Portfolio: <http://myinstructionaldesigns.com>



## COURSE APPROACH

Building an effective website requires many roles. The developers are those who build the site. "Full Stack" developers play roles throughout the web design process, and appreciate how everything works together. We frame the web development process in this course using the **ADDIE** model:

1. **Analysis:** "discover" the requirements, agree on the "project scope," and get hired.
2. **Design:** create and combine graphic designs, "wireframe" diagrams, and site maps.
3. **Development:** build a website that meets the client's requirements and matches the design.
4. **Implementation:** when done, "launch" the site to start getting ROI ("Return on Investment").
5. **Evaluation:** use logs and site feedback data to work smarter next time and get more ROI for the client.

Our course will explore each stage, but focus on development. Students will build a site with WordPress, the most popular open source website platform, applying HTML, CSS, and PHP code to customize it. This course is more complex than most and should not be your first hybrid or online course. It requires independent and interdependent learning, including peer reviews and online tutorials ([Codecademy.org](https://www.codecademy.org)).

## COURSE METHODS

**Online Work:** The class week runs Sunday - Saturday:

1. **Messaging:** Students are expected to check messages daily, via Moodle, email, or text\*.
2. **Assigned forum posts** are due by midnight Wednesday.
3. **Forum comments and other assignments** are due by midnight Saturday.
4. **New assignments** are posted Sunday by 8pm, along with an instructor video reflecting on the previous week's forum posts and introducing new topics and assignments.

This course is designed with web developers in mind, willing to try new applications and ways of working collaboratively online. It is more complex than most and should not be your first online course.

## GET COURSE POSTS BY TXT MSG

All emails include "CIS-151", so [filter and forward them to your phone](#).

## GOT A PROBLEM?

This is a first-run course, with many tools on different platforms. There will be problems! If you think you've found one, use the course [forums and wikis](#) first, so everyone can help each other. If you get frustrated, be nice! [Bad netiquette](#) will lower your standing, but Q&A forum posts that help others will raise it.

# COURSE OBJECTIVES BY ADDIE PHASE

Students will:

## Analysis

1. Evaluate a client's website needs. (Discovery)
2. Analyze needs from a pre-consult form. (Pre-Consult)
3. Explore and clarify needs with a consult meeting. (Consult)
4. Prepare and finalize a scoping document and contract. (Contract)

## Design

1. Design a website appropriate to those needs. (Design)
5. Define the information architecture of the site via sitemap and wireframes. (IA)
6. Refine the site architecture based on user personas and user stories. (User Story)
7. Select an appropriate contributed, non-responsive theme. (Theme)
8. Create a mockup of the home page based on this theme. (Mock-Up)
9. Design a project management (work breakdown) system. (WBS)

## Development

1. Develop and administer a website using free tools. (Develop)
2. Set up a development environment, including local machine and server. (Configure Platform, IDE)
3. Control text and page presentation using HTML and CSS. (Coding)
4. Control element placement using HTML, CSS, and CMS Blocks. (Site Building)
5. Control element placement and exclusion using PHP Template files. (Theming)
6. Embed interactive elements and media using code and widgets. (Integration)

## Implementation

1. Deliver selected site pages and elements to scope at production quality. (Deploy)
2. Define and manage a peer review quality assurance process. (QA)
3. Define and manage a client review process per site requirements. (Beta)
4. Perform indicated modifications within scope. Define launch tasks. (Pre-Launch)
5. Complete launch tasks. Develop a strategy for post-launch bugs and change orders (Launch)

## Evaluation

1. Evaluate product and process, as we learn by reflection on experience. (Post-Launch)
2. Analyze time tracking data and development logs for bottlenecks. (Post Mortem)
3. Prepare a plus/delta report to inform future site development. (Plus/Delta)

# WEEKLY TOPICS AND LINKS

Each week will include a video “Pep Talk” reflecting on previous work and the work to come and an “Overview” document describing the activity in detail. There may also be a “Prep Talk” including a screencast that demonstrates new procedures and content. Additional resources and links will be embedded in the Overview for the week.

## Introduction to the Course: Wednesday, 09/ 07, 11am, E159

Discussion: How the course works. Setting up work management tools.

Assignment: Surveys and Sign-Ups for [peer review teams and course participation levels](#)

Extra: Google Hangout and Live Blog -- What's WordPress? A Full-Stack Perspective.

## Discovery Week 1 (09/ 11): The Pre-Consult Form

Pep Talk: Taking Yourself Seriously

Assignment: [Pre-Consult Form](#)

Extra: *Google Form Workflows*

## Discovery Week 2 (09/ 18): The Discovery Meeting

Pep Talk: Getting Hired

Assignment: [Discovery Meeting](#)

Extra: *Peer Review, Expert Review*

## Discovery Week 3 (09/ 25): The Contract

Pep Talk: Avoiding Scope Creep

Assignment: [The Contract](#)

Extra: *Project Management & Price Setting*

## Design Week 4 (10/ 02): Information Architecture

Pep Talk: The Blind Men and the Elephant

Assignment: [Information Architecture](#)

Extra: *Page Templates and Regions*

## Design Week 5 (10/ 09): User-Based Design

Pep Talk: Show them the Banana!

Assignment: [User-Based Design](#)

Extra: *Choosing and Applying Themes*

Extra: *Sharing Mockups with Clients*

## Development Week 6 (10/ 16): Setting Up Shop

Pep Talk: Managing Yourself

Assignment: [Your Development Environment](#)

## Development Week 7 (10/ 23): Writing Clean Code

Pep Talk: Keep it Clean!

[Write Clean HTML/CSS Code](#)

# WEEKLY TOPICS AND LINKS (Continued)

## Development Week 8 (10/ 30): Your Home Page

Pep Talk: Show the Banana!

[Your Home Page](#)

*Extra: Themes and Mock-Ups*

## Development Week 9 (11/ 06): Taking Charge of Branding

Pep Talk: Managing Client Expectations

Prep Talk: Branding Your Site with CSS and PHP

Extra: [Sign Up](#) for Instructor Consults

## Development Week 10 (11/ 13): Developing Your Site

Pep Talk: Managing Yourself

Special Requirement: Project Conference

## Thanksgiving Week (11/ 20): Catch-Up

Attend to the tasks agreed to in project conferences.

## Deployment Week 11 (11/ 27): Quality Assurance

Pep Talk: Help from Your Friends

Quality Assurance: Alpha

*Extra: WordPress Plugin for QA ([Usersnap](#))*

## Deployment Week 12 (12/ 4): Prep for Presentation

Pep Talk: Help from Your Client's Friends

Quality Assurance: Beta

*Extra: Embedding Med*

## Deployment Week 13 (12/ 11): Presenting to the Client

Pep Talk: The Balance of Payment

Presenting to your Client

*Extra: Launch and Maintenance Support for Client ROI*

## Presentations: Wednesday, 12/ 14, 11am, E159

Peer review of sites with external guests.

## Evaluation Half-Week 14 (12/ 18): Plus/ Delta

Pep talk: Learning from Experience

Post Mortem and Plus/Delta