# Syllabus: Web Accessibility and Design, 2009 Spring

## Course Information
**Semester:** Spring 2009
**Dates:** January 21, 2009 - May 5, 2009
**Credit hours:** 3.0

## Instructor
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By appointment.

## Course Description
This 3-credit course will enable students to use Macromedia Dreamweaver and other Web development tools to design and develop a comprehensive web site in accordance with universal web design standards and web accessibility guidelines as defined in Section 508 of the Rehabilitation Act and the Web Content Accessibility Guidelines (WCAG) 2.0. Students will learn to evaluate and report on the accessibility of existing web content from the perspective of different disability types, using a user-centered, principle-based approach.

## Focus Areas
This course is has three focus areas:
1. **Semantic structure of web content using XHTML**
2. **Style and presentation of web content using CSS**
3. **Accessibility of web content using universal design principles**

## Student Outcomes
The course is designed to enable students to:
1. **Evaluate the semantic structure and accessibility of existing web content** by:
   o Defining and explaining the major issues and principles related to web accessibility and user adaptability
   o Describing the current laws and standards concerning web accessibility.
   o Judging the compliance of existing web content with accessibility guidelines using a combination of checklists, tools, and accessibility knowledge.
2. **Create web content that is accessible to a broad range of users, including people with disabilities** by:
   o Hand-coding basic web content, structured in XHTML
   o Styling XHTML-based content using basic CSS
   o Developing a multi-featured web site that incorporates principles of web accessibility and user adaptability—in accordance with the Section 508 guidelines at a minimum—using Dreamweaver.

## Professional/Technical Standards Taught
- XHTML (strict)
- CSS
- Section 508 of the Rehabilitation Act (the portion dealing with web accessibility standards)
- WCAG (Web Content Accessibility Guidelines)

## Course Web Site
The course is available at http://moodle.gmu.edu/

## Readings
Web-based resources will be provided by the instructor.

## Software
**Note: You do not necessarily need to buy any of the software listed below, but you will need access to it.** All of the required software will be available in the classroom computer labs in Commerce I and Robinson A350. The lab in Robinson A350 usually has more public free-use time than Commerce I. Check with the lab schedules.

- **REQUIRED: A plain text editor.** One of the simplest text editors is Notepad in Windows, which will work just fine. You may prefer a more sophisticated text editor such as PSPad or TextPad (for Windows) or Text Wrangler (for Mac).
- **REQUIRED: Dreamweaver**, since the instructor will use Dreamweaver to demonstrate the techniques. Dreamweaver is available in the computer labs in Commerce I and Robinson A350 on campus. Students may also purchase their own copy at the discounted educational rate through the campus bookstore or any other retailer such as AcademicSuperstore.com, JourneyEd.com, Gradware.com, CampusTech.com, or others. A 30-day trial version is available for download from the Adobe site, but obviously the semester lasts more than 30 days, so you'll either need to buy it eventually, use the copy in the computer labs. *(Note: I may grant permission to use another web development tool if you feel you must use another tool, but I will not provide detailed instructions for any tool other than Dreamweaver.)*
- **Optional: Any graphics program** that can create graphics for the web. We will not learn techniques for any of these programs in this class (other classes do this), but if you already know how to use them, or if you are willing to try them, they are very useful. The computer labs have Adobe Photoshop and Adobe Fireworks. For those installing the software on their own computers, if you can't afford the more expensive programs, try the cheaper ones. If you don't like any of the programs in this list, try searching on the web for "free graphics programs" (or something similar) and you'll see that you have quite a few options. (Prices shown are approximate educational price.)
    - High-end graphics software (which is powerful but perhaps overly complicated for people who aren't used to it):
        - *Adobe PhotoShop*—(Windows/Mac) very common among graphics professionals; can be purchased alone or in the Adobe Creative Suite); the downside is that it is expensive and can be complicated to use.
        - *Corel PhotoPaint*—(Windows) this is a powerful tool similar to PhotoShop; it comes with the CorelDraw Graphics suite; the downside is that, like PhotoShop, this has many advanced features that can be difficult to get used to.
        - *Corel Painter*—(Windows/Mac) for creating computer-based fine art; works best when used in conjunction with a graphics tablet; the downside is that it can be non-intuitive for non-artists
        - *Gimp*—(Windows/Linux/Mac, in the X-windows environment) FREE. This is a powerful graphics tool at the most reasonable price of all; as with the others, the downside is that the interface is sometimes confusing to people who haven't used advanced graphics programs.
    - Mid-level software:
        - *Corel Paint Shop Pro*—(Windows/Mac) quite robust at a reasonable price; quite user-friendly compared to some of the previously-mentioned programs.

- *Adobe Fireworks*—(Windows/Mac) great for web graphics, it comes with Adobe Creative Suite; quite user-friendly.
- *PhotoPlus*—Low cost or free, depending on the version. This is a great option for students on a budget. It will do most things you need to do for the web.

## Semester Schedule

This course has deadlines, but in many ways is ascynchronous, which means that you can read the materials and complete the assignments at any time of day. You may read ahead if you like, or procrastinate and fall behind. You are in charge of your own success in this course. Regardless of what type of schedule you choose, you must turn in assignments on time. A suggested schedule for reading the course materials is listed below:

### Tentative Schedule of Activities

| Week | Topics | Assignments & Due Dates<br>All assignments due by 11:59pm (23:59) on the due date |
|---|---|---|
| Jan. 21-24 | 1) Get acquainted with Moodle and course structure;<br>2) Overview of Accessibility and Web Design | |
| Jan. 25-31 | Overview of Accessibility and Web Design (continued) | **DUE MON. JAN. 27: Assignment 1:** Update your profile (moodle.gmu.edu) and introduce yourself to the class (2% of final grade)<br>**DUE FRI. FEB 6: Assignment 2:** Discussion forum questions (10% of final grade) |
| Feb. 1-7 | Learning XHTML | |
| Feb. 8-14 | Learning XHTML (continued) | |
| Feb. 15-21 | Dreamweaver & FTP | **DUE TUE. FEB 17— Assignment 3:** Create 2 practice XHTML documents (18% of final grade) |
| Feb. 22-28 | Templates, site structure, and navigation | |
| Mar. 1-7 | Introduction to Cascading Style Sheets (CSS) | |
| **Mar. 8-14** | **SPRING BREAK** | |
| Mar. 15-21 | Accessibility: XHTML | **DUE TUE. MAR. 17— Assignment 4:** Upload a practice template and web site (18% of final grade) |
| Mar 22-28 | Accessibility: Evaluation techniques | |
| Mar. 29-Apr. 4 | Accessibility: Office and PDF Documents | |
| Apr. 5-Apr. 11 | Accessibility: Video, Flash, JavaScript, and multimedia | **DUE TUE. APR. 14: Assignment 5:** Accessibility Evaluation (25% of final grade) |
| Apr. 12- | CSS: More in depth | |

| Apr. 18 | | |
|---|---|---|
| Apr. 19- Apr. 25 | Work on final project | |
| Apr. 26- May 2 | Work on final project | |
| May 3- May 9 | Work on final project | **1) DUE TUE. MAY 5: Assignment 6:** Web Design Project (25% of final grade)<br>**2) DUE TUE. MAY 5: Assignment 7:** Web Design Project Checklist (2% of final grade) |

## Grades

**Grading Scale**

| Points | Grade |
|---|---|
| 94-100 | A |
| 90-93 | A- |
| 87-89 | B+ |
| 84-86 | B |
| 80-83 | B- |
| 70-79 | C |
| 69 or below | F |

**General Grading Criteria**

| Credit | Criteria |
|---|---|
| Full credit | The student completed the assignment as directed *AND* on time. |
| Partial credit | The student did not finish the assignment, turned in the assignment late, or did not follow the instructions properly. |
| No credit | The student did not turn in the assignment, or turned it in more than a week late. |

## CEHD Statement of Expectations

The College of Education and Human Development (CEHD) expects that all students abide by the following:

- Students are expected to exhibit professional behavior and dispositions.
  See http://gse.gmu.edu for a listing of these dispositions.
- Students must follow the guidelines of the University Honor Code.
  See http://www.gmu.edu/catalog/apolicies/#honor_system_and_code for the full honor code.
- Students must agree to abide by the university policy for Responsible Use of Computing. See http://mail.gmu.edu and click on Responsible Use of Computing at the bottom of the screen.
- Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.