
<h1>	COMP 212	Web Development	</h1>
	M-W	Lecture/Lab (DC 1349) – 3:30-4:50	

Who: Michael Gousie
Where: Discovery Center 1325
When: Mon, Wed, Fri 11:30-12:30; Tue 1:30-3:00
and by appointment
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Content:

This course covers the design and implementation of dynamic web-based applications. Topics include front-end (client-side) design and back-end (server-side) implementation, making this a full-stack development course. Much of the programming will be event-driven, which is a different way of thinking than you may be used to. Some of the tools/languages you will learn include:

- HTML5 - web page markup language to create content
- CSS3 - textual language used to define rules to format web pages
- JavaScript - front-end (client-side) scripting language to add application behavior
- jQuery - JavaScript library that simplifies common web page tasks
- AJAX and JSON to send/receive data from a web server, allowing you to link the front- and back-ends
- PHP - server-side scripting language to create dynamic content (a nice way to say this)
- MySQL - popular relational database management system (RDBMS) to store and retrieve your data
- React - open-source JavaScript library to more easily create nice user interfaces
- Bootstrap - HTML/CSS library containing templates
- Node.js - platform for running JavaScript code on a web server (if time)

Objectives:

At the completion of the course, students will be able to design, construct, and deploy a web site using the tools listed above. This includes both front- and back-end programming, and uploading data to the cs server.

Required Texts:

- There is a required e-book from **zyBooks** for this course:
 1. Sign in or create an account at learn.zybooks.com (link on course web page).
 2. Enter zyBook code: **WHEATONCOLLEGECOMP212GousieFall2025**
 3. Subscribe. The subscription rate is \$64 for the semester.
- Beaird, J., George, J., and Walker, A. *The Principles of Beautiful Web Design*, 4th edition. Sitepoint, 2020.

Recommended Texts:

- Lynch, P. and Horton, S. *Web Style Guide*, 4th edition. Yale Press, 2016. A link for the (free) e-book version is available on the course web page.
- Duckett, J. *HTML & CSS: Design and Build Websites*. Wiley, 2011.
- Duckett, J. *JavaScript and jQuery: Interactive Front-End Web Development*. Wiley, 2014.
- Nixon, Robin. *Learning PHP, MySQL & JavaScript (with JQuery, CSS & HTML5)*, 7th Edition. O'Reilly Media, 2025. This is the most comprehensive text.

Requirements:

I expect a lot from my students. Why? Because I like to challenge you to learn as much as possible and expand your boundaries, as well as be creative. And because *you can do it!*

There will be two exams during the semester and a comprehensive final exam. The exams make up 50% of your grade. There will be five web projects as well; the topics are shown below. Some of these may be completed with a partner(s). The projects are worth 45% of your grade. The remaining 5% of your grade will be comprised of reading the course textbook and *completing* the online quizzes/review questions given in each chapter. These must be completed by the due date; your responses and the date of those answers are collected on the web site. This means that you *must* register for the online book.

Grades will be assigned according to the following scale:

A = 93-100, A- = 90-92, B+ = 87-89, B = 83-86, B- = 80-82, C+ = 77-79, etc.

Exam Schedule:

Exam	Weight	Date
Exam 1	16%	October 1
Exam 2	17%	November 3
Final	17%	December 12 @ 2:00 PM

Assignment Schedule:

Program	Weight	Topic (Subject to change)	Approximate Due Date
Web1	6%	Basic web page: HTML, server	Week 3
Web2	9%	Better web page: HTML, CSS	Week 6
Web3	9%	Dynamic web page: JavaScript	Week 10
Web4	12%	Full-stack programming	Week 13
Web5	9%	Mobile web site	Week 15

Course Policies:

- You are responsible for all material covered in class, including the reading (and accompanying on-line quizzes) shown in the schedule below.
- If you must miss a quiz or exam for any reason, you must inform me **before** the test. Except in the case of emergency, illness (almost death), or you were taken away by aliens from Area 52 that is now the Dimple, makeup exams will not be given.

- Projects must be completed using the tools/languages specified in the assignments. Your web sites will be tested using the Firefox browser.
- We will use some AI to show its strengths and weaknesses in the pursuit of a well-written, efficient program. See also the Honor Code section about using AI, below.
- Assignment due dates are **firm**.
 - All web projects must be uploaded to the CS server by 11:59:59 PM on the due date unless otherwise noted. Projects submitted on the following day (i.e., after midnight) will receive a 15% penalty. Anything turned in later will receive a 0. Hard copy, if required, must be submitted the following day or as indicated in the project specifications.

Note: Do not upload new files or update code on the server after midnight on the due date. Making changes will update the time stamp on your files!
 - Electronic (zyBooks) homework must be completed by the due date. There are **no** provisions for late homework.
 - There will not be any individual “extra credit” work. If you did not have time to do a good job on the original assignment, how will you have time to do *additional* work?
- You are expected to adhere to the Honor Code.
 - Although *discussion* of projects or homework is encouraged, the *implementation* of programs is to be the result of your **own** or your group’s work.
 - In web development, integrating code from other open sources into your own pages is considered acceptable. However, you must cite, with a comment, the portions of code that are not your own. If you do not do this and can not explain the purpose, function, and details of your code, it will be considered plagiarized.
 - AI can help you speed up the programming process by having it do some of the more menial tasks. However, your program should still be **your own work**. Copy/paste is not the way to learn how to program, whether you are doing this from another person or from an AI application. If you are unsure where the line is between collaborating with AI and copying from AI, we recommend the following heuristics:
 - * Never hit *Copy* within your conversation with an AI assistant (and then *Paste* into your code). You can copy your own work into your conversation, but do not copy anything from the conversation back into your assignment. Instead, use your interaction with the AI assistant as a learning experience, then let your assignment reflect your improved understanding.
 - * Do not have your assignment and the AI agent itself open on your device at the same time. Similar to above, use your conversation with the AI as a learning experience, then close the interaction down, open your assignment, and let your assignment reflect your revised knowledge. This heuristic includes avoiding using AI assistants that are directly integrated into your composition environment: just as you should not let a classmate write content or code directly into your submission, so also you should avoid using tools that directly add content to your submission.
 - If a project looks suspicious, I may ask you to explain the purpose, function, and details of your code; if you can’t, it will be considered plagiarized.
 - Collaboration on exams is prohibited.

- Any violation of the above guidelines will result in a 0 for the assignment/exam and/or a failing grade for the course.
- You will be required to write and **sign** the pledge on all work turned in: *I have abided by the Wheaton Honor Code in this work.* On web/site pages, this should be included in a comment at the top of each file or as directed on the assignment specifications.
- The use of cell phones, iPods, iPads, iPhones, iPlops, iFlops, and other personal electronic devices is prohibited during class and exams, except in the case of testing responsive designs.
- Once class begins, no one should leave class except in the case of an emergency.
- Accommodations for disabilities:

*Wheaton College is committed to providing equitable access and supportive services for all students to fully access and thrive in the academic, residential and social aspects of student life. Affirmatively, Wheaton provides appropriate accommodations for eligible students with documented disabilities to afford equal access to educational programs and services. Individuals with disabilities and other access concerns requiring accommodations or information on accessibility should reach out to Accessibility Services at the Filene Center:
~ accessibility@wheatoncollege.edu or (508) 286-3794 ~*

Course Schedule (Subject to change):

Wk #	Week Begin	Topic	Reading*
	August		
1	24	Introduction, domain names, URLs, IDEs	Ch. 1
2	31	HTML and CSS	Chs. 2-3; BWD Ch. 1-2
	September		
3	7	Design Principles	BWD Ch. 3-4
4	14	Advanced CSS	Ch. 4; BWD Ch. 5
5	21	Intro to JavaScript	Ch. 5
6	28	HTML Forms; Exam 1 (Wednesday)	Ch. 6
	October		
7	5	JavaScript: DOM and JSON	Ch. 7
8	12	No class Oct. 13 – October Break JavaScript: Ajax and jQuery MAP Day October 16	Ch. 8
9	19	PHP	Ch. 9
10	26	RDBMS and SQL	Ch. 10
	November		
11	2	Exam 2 (Monday); mySQL	Ch. 11
12	9	Cookies	Ch. 11 (cont.)
13	16	Mobile Web Development I	Ch. 12
14	23	Mobile Web Development II	Ch. 12 (cont.)
15	30	No class Nov. 26 – Thanksgiving Bootstrap/React	Ch. 13
	December		
16	7	Final Exam on Sat, December 12 @ 2:00 PM	Whew!

* Readings are from the zyBooks e-book; BWD denotes *The Principles of Beautiful Web Design* by Beard, George, and Walker.