Syllabus for Web Application Programming

CIS 371 (Section 01) Fall 2024

Web Application Programming is all about the building blocks of web programming. In this course, we dive deep into how websites and web apps are built and run. We'll look at the common methods and tools used in web development and study the different programming and markup languages that make websites work. We'll also cover important topics like how to connect websites to databases, making sure websites meet standard guidelines, and how to keep websites safe from security threats.

Contact Information:

Instructor:	Dr.Yong Zhuang
E-mail:	yong.zhuang@gvsu.edu
Office:	MAK D-2-234
Office Hours:	MW, 12:00 pm-1:00 pm, in-person (MAK D-2-234) and remote (Zoom)
Course Page:	Blackboard & https://gvsu-cis371.github.io
Zoom:	Meeting ID: 396 668 6420, Password: 587684
Section 01:	**Class time:** MWF 2:00 pm - 2:50 pm
	Room: MAK D-1-117
	Midterm: (Monday) October 7, 2:00 pm - 2:50 pm
	Final exam: (Wednesday) December 11, 2:00 pm - 3:50 pm

Course Objectives:

After completing this course, students should be able to:

- Apply foundational knowledge of HTML to structure web content effectively.
- Create stylesheets to control the visual appearance of web pages.
- Craft modern front-end web applications using JavaScript and TypeScript.
- Write server-side scripts to support the functionalities of a web application.
- Utilize Ajax to fetch data from the server and dynamically update content without reloading the entire page.
- Employ web APIs effectively to send and receive data between the client and server.
- Analyze large-scale problems and construct comprehensive websites as solutions.

Prerequisites:

(CIS 162 or CIS 260) and (CIS 333 or CIS 353)

Course Materials:

None - web resources will be provided

Course Delivery - In Person:

This course will be delivered **in person**, following proper social distancing protocols. If it becomes necessary to change delivery formats, we will change to an *online synchronous* format.

Expectations: I expect the following from you to ensure your success in this course:

a) check Blackboard and Course Website on a regular basis for announcements, course material, sample code and assignments

b) adhere to the CIS & GVSU policy of Academic Honesty

GVSU Blackboard: Course materials, assignments, grades, and announcements will be posted to Blackboard (https://lms.gvsu.edu/). It is your responsibility to stay informed.

Note: I use Blackboard's course announcements to communicate timely information about the course (e.g., changes to deadlines, etc). Ensure that your notification settings for Blackboard are set up to allow you to get updates as they are posted.

Grading Proportions:

Course Component	Overall Weight
Quizzes	30%
Assignments & Projects	30%
Midterm Exam	20%
Final Exam	20%
Total	**100%**

The instructor reserves the right to make minor adjustments to the point distribution.

Grade A	Grade B	Grade C	Grades D & F
$A \geq 93\%$	$B+ \geq 87\%$	$C+ \geq 77\%$	$D+ \geq 67\%$
$A- \geq 90\%$	$B \geq 83\%$	$C \geq 73\%$	$D \geq 60\%$
	$B- \geq 80\%$	$C- \geq 70\%$	$F < 60\%$

Course Policies:

Assignments, Due Dates and Attendance:

- **Due dates:** All assignments will be due at 11:59pm Michigan time on the due date.
- **Late policy:** Each student is required to complete all learning activities by the due date deadline. No learning activities or assignments are accepted late. All assignments, graded discussions, quizzes, exams, etc., are submitted electronically. No assignments are accepted via email, printed, or any other method.

- ☞ **Attendance:**
  - ✸ Students are responsible for material, announcements, and learning activities covered in class. Obtain lecture notes from a classmate if you miss class.
  - ✸ Some quiz and exam questions may refer to material covered only in class. There is a direct relationship between attendance and your grade. Simply put, if you miss class, your grade is negatively impacted.
  - ✸ Per University policy, "In case of excessive absences, the instructor may refuse to grant credit for the course." https://www.gvsu.edu/catalog/navigation/academic-policies-and-regulations.htmanchor-45.
- ☞ **Accommodations:** Inform your instructor of any required accommodations to ensure successful learning. Any impediments should be discussed with the instructor.
- ☞ The instructor reserves the right to modify course policies, the course calendar, and due dates.
- ☞ This course adheres to the GVSU policies available at www.gvsu.edu/coursepolicies/.

Academic Honesty:

All students are expected to adhere to the academic honesty standards set forth by Grand Valley State University. In addition, students in this course are expected to adhere to the academic honesty guidelines as set forth by the School of Computing. Details can be found at https://www.gvsu.edu/computing/academic-honesty-30.htm

I believe in the value of learning from peers, both in class and within the broader community. Collaboration is encouraged, but it must be balanced with academic integrity. Here's how you can collaborate responsibly:

- ☞ Document Collaborations: Clearly note any collaborations on individual assignments.
- ☞ No Code Sharing: Direct electronic transfer of code between students is not allowed.
- ☞ Cite Internet Sources: If you use code from the internet, provide an active link and ensure it doesn't constitute the entire solution.
- ☞ Engage Online Respectfully: Participate in forums for discussion, not for sharing solutions or soliciting complete answers.
- ☞ Discuss Conceptually: Talk about problems using non-technical, conceptual language rather than sharing specific code.
- ☞ Ultimately, you are responsible for all aspects of your submissions. You should be able to explain and defend your submission if the work is entirely your own.

Academic Resources: GVSU also provides opportunities for students to improve their academic skills through resources such as:

- **The writing center:** The Fred Meijer Center for Writing, with locations at the Allendale and Pew/Downtown Grand Rapids campuses, is available to assist you with writing for any of your classes. For more information about these services and locations, please visit their website: http://www.gvsu.edu/wc/
- **Speech lab:** The Grand Valley Speech Lab is a peer-to-peer communication center that helps students with all elements of oral presentations. For more information about this service, please visit their website: https://www.gvsu.edu/speechlab/
- **Research consultants:** The Center for Scholarly and Creative Excellence (CSCE) promotes a culture of active, engaged, ethical scholarship. It supports innovative faculty and student research and collaborative partnerships in the broader community. For more

information, please visit their website: https://www.gvsu.edu/csce/

- **Library:** GVSU's library offers a vast collection of online resources available for students. Visit their website for more details: https://www.gvsu.edu/library/
- **Disability support resources:** If any student in this class has special needs because of a disability, please contact Disability Support Resources at http://www.gvsu.edu/dsr/ (DSR) at 616-331-2490.

Religious Observance: The university recognizes and respects religious traditions. If you require special accommodations for religious observances, inform the instructor in advance.

Emergency Procedures:

- ☞ **In Case of Emergency Fire**: Immediately proceed to the nearest exit during a fire alarm. Do not use elevators. More information is available on the University's Emergency website located at http://www.gvsu.edu/emergency.

Tentative Course Content (subject to change throughout the semester):

- ☞ **September 1–2, 2024 Labor Day Recess:** No classes!
- ☞ **October 20–22, 2024 Fall Break:** No classes!
- ☞ **November 27–December 1, 2024 Thanksgiving Recess:** No classes!

Module	Lecture & Discussion Topic
1	Introduction to HTML, DOM, and CSS Basics
2	Programming with JavaScript and TypeScript
3	JavaScript Modules, HTTP Protocols, Promises
4	Fetch & Axios, and ExpressJS Fundamentals
5	Managing Data with Cloud Databases
6	Single-Page Applications: Vue.js, Vuetify, Vue Router, and Pinia
7	Advanced Topics: (TBD)