

COM6338: Advanced Web Topics 1: Advanced Design

Academic Term: Spring 2025 4 Credit Hours

Instructor

Name: Lee Warrick

Email Address: mynar7@ufl.edu

Virtual Office Hours: Office hours will be held on Tuesdays at 8:00AM ET. A link to the meeting will be posted in the class announcements. These optional sessions may be utilized to review course material or assignments. If you're unable to attend due to scheduling conflicts but would still like to meet, please use this link to schedule time.

Course Description and Prerequisites

Course Description: This course expands upon the concepts taught in Web Design Principles to give students a solid foundation in front-end application development using JavaScript. The students will learn to manipulate the Document Object Model using JavaScript to create interactive and functional user interfaces. The course topics include how to access data from external applications using HyperText Transfer Protocol (HTTP) with JavaScript's XMLHttpRequest (XHR) Application Programming Interface (API) to create dynamic web applications and learn the differences between JavaScript versions and the latest language features. Students will also learn how to maintain compliance with Web Content Accessibility Guidelines (WCAG) while creating web applications.

Course Prerequisites - MMC5277 Web Design Principles

Course Expectations

This course is fully online; you must log in to Canvas with your Gatorlink username and password to access the materials and assignments. The course is organized into modules with due dates. Unless otherwise specified, each module begins on Monday at 12:00 AM ET and ends on Sunday at 11:59 PM ET.

Time Commitment & Student Workload Expectations

Expect to spend 10 to 20 hours per week per course watching or attending lectures, reading, working on assignments and projects, and engaging in discussions.

Expectations for Writing Assignments: Writing Style

To meet the academic rigor and standards of a graduate program, all students must use the Publication Manual of the American Psychological Association (APA) 7th Edition style in their courses when appropriate for the assignment. The APA 7th Edition Manual has a plethora of guidelines that include scholarly writing, publishing principles, elements and format for your papers, writing style and grammar, bias-free language guidelines, mechanics of style, in-text citing references, etc. For additional information on notable changes, see changes between APA 6th Edition and APA 7th Edition.



Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies for information on absences, religious holidays, illness, and the twelve-day rule. Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation.

Late Assignment Policy

Late assignments will not be accepted unless it is a <u>University excused absence</u>, as stated in the attendance policies. *Due to the university grading deadlines, no late work will be accepted for final projects or work due in the final week of class*. Students should contact their instructors before submitting the assignment deadline if potential issues arise concerning submitting the final work.

- 1. Late Assignments will not be accepted.
- 2. Late Discussions will not be accepted.

Student Guidelines for Course Challenges

A student with questions regarding course content such as assignments, assessments, instructional materials, lectures, meetings, course objectives, course module objectives, or other areas of the course, please adhere to the following guidelines: First, approach the faculty member who is teaching the course to ask for clarifications regarding the course assignments, assessments, materials, lectures, meetings, etc. Use the instructor's contact information to request an appointment where you can address any concerns and/or questions. If, after meeting with the faculty member teaching the course, you are still unclear on the course assignments, assessments, materials, lectures, meetings, etc., then the next step would be to contact online advising (onlineadvising@jou.ufl.edu) for additional guidance.

Accessibility/Students with Disabilities Information

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the <u>Disability Resource Center</u>. It is important for students to share their accommodation letters with their instructors and discuss their access needs as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback professionally and respectfully is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://gatorevals.aa.ufl.edu/public-results/.

Course-Level Objectives

Upon successful completion of this course, students will be able to:

- 1. Explain computer programming. (CO: 1)
- 2. Identify programming strategies. (CO: 2)
- 3. Explain JavaScript. (CO: 3)
- 4. Explain the JavaScript Document Object Model (DOM). (CO: 4)
- 5. Describe strategies for maintaining accessibility when building User Interfaces (UI) with JavaScript. (CO: 5)



- 6. Examine Asynchronous JavaScript and XML (AJAX). (CO: 6)
- 7. Explain Application Programming Interface (API). (CO: 7)
- 8. Examine JavaScript versioning. (CO: 8)
- 9. Summarize Agile Development. (CO: 9)
- 10. Examine Object-Oriented Programming (OOP). (CO: 10)
- 11. Examine Functional Programming (FP). (CO: 11)
- 12. Develop a web application. (CO: 12)

Textbooks and Materials

Required Course Current and Seminal (Older Than 5 Years Old) Textbooks

Duckett, J. (2014). JavaScript and JQuery: Interactive front-end web development (1st ed). Wiley.

ISBN-10: 9781118531648ISBN-13: 978-1118531648

Required Software: There is no required software to purchase for this course.

Recommended Textbook(s)

This textbook is recommended in all CJC Online classes to support student expectations for writing style.

American Psychological Association. (2020). *Publication manual of the American Psychological Association: The official guide to APA style* (7th ed.).

ISBN-13: 978-1433832161ISBN-10: 143383216X

University and Course Grading Policies

University Honor Code

UF students are bound by The Honor Pledge, which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies the number of behaviors that violate this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor in this class.

Plagiarism

Plagiarism is unacceptable, especially in academic communities. All academic work must be an original work of your own thought, research, or self-expression. Plagiarism includes but is not limited to, prohibited collaboration, consultation, and submission of academic work that has been purchased or obtained (see the <u>UF Policy: Student Conduct Violation</u>). In addition, self-plagiarism is also unacceptable. Self-plagiarism is defined as recycling or reusing one's own specific words from previously submitted assignments or published texts. Remember that plagiarism is unacceptable in any of your work, including all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. It's important to always cite your sources in your assignments.



Grading Criterion

Your grade will be calculated based on the following:

Assignments/Assessments	Weight (%)
Course Orientation: These assignments are required; however, they not count towards the final	
grade.	
Student Introduction	
Course Evaluation	
10 Assignments	85%
Worth up to 100 points each	
1 Group Project	
Worth up to 100 points	
1 Discussion	
Worth up to 100 points	
TOTAL	100%

Grade	Percentage
Α	92.5-100%
Α-	89.5-92.4%
B+	86.5-89.4%
В	82.5-86.4%
B-	79.5-82.4%
C+	76.5-79.4%
С	72.5-76.4%
C-	69.5-72.4%
D+	66.5-69.4%
D	62.5-66.4%
D-	59.5-62.4%
E	0 – 59.4%

The only passing grades for graduate students are A, A-, B+, B, B-, C+, and C. Letter grades of C-, D+, D, D- or E are not considered passing at the graduate level. However, the grade points associated with these letter grades are included in grade point average calculations. See the <u>Graduate Catalog</u> and <u>UF graduate school grading policy</u> for more information.

Student Privacy

Federal laws protect your privacy regarding grades earned in courses and on individual assignments. For more information, please see the <u>Notification to Students of FERPA Rights.</u>

Technology Requirements

Software Use

All faculty, staff, and students at the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate. We, the



members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Software

- Microsoft Office 365.
- UF Apps access UF software applications from any device from any location at any time.
- Adobe Reader
- <u>Zoom</u>

Technical Support

If you have technical difficulties with your course, don't hesitate to contact the UF Computing Help Desk by filling out an online request form or calling 352-392-4357 (HELP).

If your technical difficulties cause you to miss a due date, you must report the problem to the Help Desk and then email your instructor. Include the ticket number you are given from the Help Desk in an email to the instructor to explain the late assignment/quiz/test.

IT Support

For all Technical assistance questions, please get in touch with the UF Computing Help Desk.

Phone: 352-392-HELP (4357) Email: helpdesk@ufl.edu

Communication Policies

Student Expectations

In a graduate level course, you are expected to research and troubleshoot creatively if you run into any coding scenarios that you don't understand. These topics can be difficult for students without any programming experience, and it is not realistic to expect students to master them in a single semester.

While you are welcome and encouraged to use MDN, W3 Schools, Stack Overflow, and any other resources you can find via Google search, please be mindful of the plagiarism policy outlined above. While it is normal to copy brief snippets of code occasionally from other sources, you are expected to write the solution code to the assignments in this course on your own. If it is determined that your submitted code is not your own, you will receive 0 points for your submission. Furthermore, your previous submissions will be scrutinized. If those are also determined to be plagiarized, those previous grades will be changed to 0s as well.

If you run into issues while working on any activities or assignments involving programming and would like assistance, please do NOT send screenshots of your code or error messages. Please push your code to GitHub and include the GitHub URL and live site URL with a description of the issue when writing your message. This will allow me to debug the program quickly and include links in my response showing the location of errors within your code.

Announcements

You are responsible for reading all announcements posted in the course each time you log in.



Email

You are responsible for reading all your course emails and responding promptly (within 24 hours).

Instructor Communications

Email Policy

Except for weekends, holidays, and University breaks, the instructor will typically respond to emails within 48 hours. For course-related questions, please post on the Canvas FAQ discussion board. If you have questions of a personal nature, please email me directly.

Assignment Feedback Policy

I will provide feedback/grades on submitted assignments within two weeks of the due date. Some assignments may require a longer review period, which I will communicate to you if necessary.

Course Policies

Video Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal, educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Privacy

If your course includes live synchronous meetings, the class sessions will all be recorded for students in the class to refer to and for enrolled students who cannot attend live. Students who participate with their camera engaged or utilized a profile image agree to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate agree to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. Please see UF's Information Technology policies for additional information.



Challenging Topics

In this course, we may cover subjects that may be sensitive and/or challenging. As in all our courses, we do this not to indoctrinate but to instruct, to prepare you to be the most effective and successful media professional or scholar you can be. We encourage you to understand all concepts presented in class, but we know that what you personally believe is your choice. If you want to discuss anything regarding this, don't hesitate to contact me directly.

Academic and Student Resources

Academic Resources

- E-learning Technical Support: Contact the UF Computing Help Desk at 352-392-4357 (HELP) or via e-mail at helpdesk@ufl.edu.
- Career Connection Center: Career assistance and counseling. Reitz Union, Phone: 352-392-1601.
- <u>Library Support</u>: Various ways to receive assistance concerning using the libraries or finding resources.
 <u>UF Library Services for Distance Students</u>
 <u>Ask a Librarian</u> chat with librarians online.

 CJC Librarian April Hines, Phone: 352-273-2728, Email: aprhine@uflib.ufl.edu.
- <u>Writing Studio</u>: Provides one-on-one consultations and workshops tailored to specific classes (graduate and undergraduate). 302 Tigert Hall, Phone: 352-846-1138.

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, call 352-294-2273, or visit the website to refer or report a concern, and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis and non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need or visit the <u>Student Health Care Center website</u>.
- University Police Department: Visit the <u>UF Police Department</u> website or call 352-392-1111 (or 9-1-1 for emergencies).



• GatorWell Health Promotion Services: For prevention services focused on optimal well-being, including wellness Coaching for Academic Success, visit the <u>GatorWell website</u> or call 352-273-4450.

Student Fees and Service Entitlement

Student Fees

There are fees mandated by the state and one local fee that ALL students must pay per credit hour. Visit the <u>University</u> <u>Bursar</u> for up-to-date fee rates.

- Capital Improvement Trust Fund Fee
- Technology Fee
- Student Financial Aid Fee [not applicable for certificate programs]

Student services and entitlements

The student services that the distance student is entitled to are comparable to those of the resident student and should include the following:

- Eligibility for financial aid and financial aid advising [not applicable for certificate programs]
- Student complaints and concerns
- Student counseling and advising
- Student organizations
- Technology assistance



Course Schedule		
Week Number	Topic and Assignments	
1	Module 1: Introduction to Programming	
	Mod 1 Assignment: Create a Game for Children	
	Mod 1 Discussion: Solving Programming Challenges	
2	Module 2: Essential JavaScript Features	
	Mod 2 Assignment: Create a Greeting using JavaScript	
3 & 4	Module 3: Objects, Arrays, and Loops	
	Mod 3 Assignment: Create a Quiz Game with JavaScript	
5	Module 4: Using JavaScript to Interact with HTML	
	Mod 4 Assignment: Create a word-guessing game with JavaScript	
6	Module 5: Understanding Browser Events	
	Mod 5 Assignment: Create a Todo application with JavaScript	
7	Module 6: Building User Interface Elements with JavaScript	
	Mod 6 Assignment: Create a hamburger menu for a website using JavaScript	
8	Module 7: Timers and LocalStorage	
	Mod 7 Assignment: Create a Multiple Choice Quiz game with JavaScript	
9	Module 8: Asynchronous JavaScript and XML (AJAX) with the Fetch Interface	
	Mod 8 Assignment: Create a Weather forecast application using JavaScript	
10	Spring Break	
11	Module 9: JavaScript Versions and ES6+	
	 Mod 9 Assignment: Refactor existing JavaScript code using features from ES6 and newer versions of JavaScript 	
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12 & 13	Module 10: Application Development in Teams	
	Mod 10 Assignment: Group Project	
14	Module 11: Functional Programming	
	Mod 11 Assignment: Use functional programming features of JavaScript to complete a and an appropriation.	
	random poem application	
15	Module 12: Object-Oriented Programming	
	Mod 12 Assignment: Use object-oriented programming (OOP) features of JavaScript to finish refer to ring a world guarantee.	
	finish refactoring a word-guessing game.	

The instructor reserves the right to adjust this syllabus as necessary.