ITP 404: Advanced Front-End Web Development

Units: 4
Fall 2023 – Monday – 5pm - 8:20pm

Location: GFS 221 & Online

Instructor: David Tang
Office Hours: By appointment
Contact Info: dtang@usc.edu

IT Help: Provided by Viterbi IT
Hours of Service: 8am – 5pm, Mon-Fri
Walk-in: DRB 205
Contact Info: (213) 740-0517
Email: engrhelp@usc.edu

Course Description

The objective of this course is to provide students with the necessary skills to build JavaScript web applications using modern techniques, frameworks, libraries, and tools that are used among developers within the industry. The concepts learned in this class will be applicable to many technology stacks used in front-end web development.

Prerequisite(s)

ITP 301, ITP 303, ACAD 275, or experience with HTML, CSS, and JavaScript

Students should be familiar with concepts such as variables, loops, conditional logic, functions, and the basics of objects.

Technological Proficiency and Hardware/Software Required

Students should have access to their own computers running either Windows, MacOS, or Linux, and should be familiar with the basic operation of their computers.

Grading Breakdown

Assignments	30%
Quizzes	20%
Midterm	20%
Final Project	30%
Total	100%

Grading Scale

Course final grades will be determined using the following scale:

A	93% or up
A-	90% - 92%
B+	87% - 89%
B	83% - 86%
B-	80% - 82%
C+	77% - 79%
C	73% - 76%
C-	70% - 72%
D+	67% - 69%
D	63% - 66%
F	62% or below

Asynchronous Learning

All lectures will be recorded and made available to students for asynchronous learning. This course can be taken and completed asynchronously.

Exams

No make-up exams will be offered. Failure to submit an exam on time or submitting blank work will result in a 0% for the exam grade.

Late Assignments

A 10% per day penalty is applied to late assignments. No submissions are accepted after five (5) days beyond the due date. To receive a grade, students must notify the grader once the late assignment is submitted.

Grade Corrections

Any questions or concerns regarding grades must be addressed within seven (7) days after grades are posted on Blackboard. No changes to any grades will be made after seven (7) days.

Academic Integrity

All coursework is expected to represent each student's individual effort. Students may not collaborate, share, or look at other students' code.

Course Material

All lectures will be recorded and made available to students enrolled in the course. These class recordings are made available only for access by students in this class for educational purposes only and shall not be disclosed to any other party for any purpose.

Students may not reproduce, distribute, or post any course material, including notes, assignments, labs, and tests, without the instructor's written consent. Refer to *SCampus* in Part B, Section 11.12 for more information https://policy.usc.edu/scampus/.

Course Schedule

Note: Subject to change throughout the semester

Week	Date	Lecture	Assignment
1	8/21	Course Introduction HTTP fundamentals JS: Synchronous and asynchronous programming, AJAX with fetch (part 1), JSON, promises, XSS	Assignment 1
2	8/28	React: Introduction to JavaScript frameworks	Assignment 2
3	9/4	Labor Day – No class	
4	9/11	JS: Working with arrays, primitive vs. reference values React: Rendering arrays	Assignment 3
5	9/18	**Quiz 1** JS: Classes and objects React: Class components	
6	9/25	React: Conditional rendering, forms, controlled components	Assignment 4
7	10/2	React: Client-side routing (part 1)	Assignment 5
8	10/9	REST APIs JS: fetch (part 2) React: Client-side routing (part 2)	Assignment 6
9	10/16	**Midterm**	
10	10/23	React: Client-side routing (part 3), portals	
11	10/30	Real-time web applications with Web Sockets	
12	11/6	React: Reusable Component Patterns	Assignment 7
13	11/13	React: Testing Components	Assignment 8
14	11/20	**Quiz 2** Careers in Tech	
15	11/27	React: Higher-order functions and components Authentication with Auth0	**Final Project Due 12/3**

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" https://policy.usc.edu/scampus-part-b/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Support Systems

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255
Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. http://www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.
https://engemannshc.usc.edu/rsvp/

Sexual Assault Resource Center
For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: http://sarc.usc.edu/

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086
Works with faculty, staff, visitors, applicants, and students around issues of protected class.
https://equity.usc.edu/

Bias Assessment Response and Support
Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. https://studentaffairs.usc.edu/bias-assessment-response-support/

The Office of Disability Services and Programs
Provides certification for students with disabilities and helps arrange relevant accommodations. http://dsp.usc.edu

Student Support and Advocacy – (213) 821-4710
Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. https://studentaffairs.usc.edu/ssa/

Diversity at USC
Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. https://diversity.usc.edu/

USC Emergency Information
Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, http://emergency.usc.edu

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.

Provides overall safety to USC community. http://dps.usc.edu