Parsons School of Design
MFA Design and Technology
Web Advanced, JavaScript PGTE 5505 CRN 7792
Fall 2021
Tuesdays, 9:00 am – 11:40 am ET
Zoom: https://NewSchool.zoom.us/j/97261606892?pwd=ZmVjdy80Mm9Md3h2TXJyUDFETDYwdz09

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Course Description

Most web applications are coded in some form of JavaScript. JS is a scripting language that is continuously evolving, with a large community continually building libraries and frameworks for it.
In this course, we will learn JavaScript properly. Then, we will learn useful design patterns. Then we will pick up useful tools for making cool things better.

Learning Outcomes
By the successful completion of this course, students will be able to:

1. Strongly understand JavaScript programing language and its applications.

2. Ability to leverage various types of Web APIs available to client browsers.

3. Understanding of different JavaScript frameworks widely use in the industry.

4. Clear insight on Client/Server Architecture, communication with Web Servers.

5. Establish an industry standard workflow for building web applications.

Assessable Tasks

The goal of the course is to work to the best of the students' ability. The grades will reflect that effort. Attendance, Participation, and short assignments will serve as the way to measure student engagement with the class.

Evaluation and Final Grade Calculation

Active Participation / Attendance	30%
Short Assignments	20%
Midterm	20%
Final Project	30%
TOTAL	100%

Attendance and Participation require contributions in class and to the course forums, the day-to-day substance of the course, including but not limited to developing ideas, defining projects, working with others in a timely and reliable way.

Short assignments mean that there will be several assignments throughout the semester. These will usually be taking home, in which students will need to develop a project based on the learning materials.

Midterm and Final Project means the collective process of developing and delivering the results of the student's project towards the end of the semester. In parallel to short assignments, the students will develop one personal

project during the semester. The Midterm will serve as a mid-point checking, where they will receive feedback. The final delivery will be a culmination of the concepts learned through the course and will be a showcase for their portfolio as well as a blueprint for their future web development endeavors.

Course Outline

The course will introduce unique features of JavaScript and explore its evolution from a browser enhancement framework into a modern web framework for building efficient and highly capable applications. The learning process will work through basic programming approaches, learning syntax, applying them on individual projects and eventually preparing a modern development workflow to formalize and automate the process of building and generating a modern web programming platform.

Each class will run through topics (as outlined below) and follow up with a quiz/assignment to be completed outside the class session. Canvas will be used on a regular basis to document the projects. All the code is going to be uploaded to GitHub. Each assignment posted in Canvas should include the link to the code, analytical documentation, references and any questions, speculations related to the project on hand. All communication and course-related discussions are going to be handled via Slack.

WEEK 1	8/31	Introduction, History, Syllabus, Intro to JavaScript Syntax.	Assignment: Intro to JS - Codeacademi. Define project that will be developed during the semester. Due: 9/7
WEEK 2	9/7	JavaScript Syntax: variables, expressions, operators, statements, functions and objects	Assignment: Create a flow diagram on a decision-based activity and create small quiz or text adventure. Due: 9/14
WEEK 3	9/14	Responsive Web: Media Queries	Assignment: Create the structure (HTML / CSS / JS) for your final project. Make sure that it's responsive. Due: 9/21
WEEK 4	9/21	jQuery	Assignment: Create a navigation and scroll animation using jQuery for your final Project Find another library and do a small research on how it's used. Due: 9/28

WEEK 5	9/28	Introduction to API/ JSON / Handlebars.js	Assignment: Create your own JSON file and pull the information into your application using handlebars Due: 10/5
WEEK 6	10/5	API Calls	Assignment: Select and API and use it, making calls from your application. Due: 10/12
WEEK 7	10/12	Mid Term Evaluation – Present your concept and the progress made throughout the first half of the semester.	Assignment: Submission of midterm project code and documentation Due: 10/19
WEEK 8	10/19	JS Frameworks & Libraries: Introduction to React.js	Assignment: Create a new project using React.js Bring some of your Midterm website styles and functionalities into React.js Due: 10/26
WEEK 9	10/26	JS Frameworks & Libraries: Continuing with React.js	Assignment: Bring the information from your Midterm website into your React.js application. Due: 11/2
WEEK 10	11/2	Library Day - D3.js	Assignment: Select one of the examples from https://d3js.org/. Modify it using your own dataset. Due: 11/9

WEEK 11	11/9	JS Frameworks & Libraries: Angular	Assignment: Create a new project using Angula Bring some of your Midterm website styles and functionalities into Angular Due: 11/16
WEEK 12	11/16	JS Frameworks & Libraries: Vue	Assignment: Create a new project using Vue.js Bring some of your Midterm website styles and functionalities into Vue.js Due: 11/23
WEEK 13	11/23	Node.js	Assignment: Insert and Get Data with MongoDB using Node.js and Express Due: 12/7
WEEK 14	12/7	Library Day - Three.js	Assignment: Refine your final project, and prepare the necessary documentation Due: 12/12
WEEK 15	12/12	Final Project Presentation	Assignment: Submit your final project and documentation. Due: 12/19

Recommended Reading

1. Eloquent JavaScript 3rd edition: http://eloquentjavascript.net/
2. You Might Not Need JQuery: http://youmightnotneedjquery.com/
3. ECMAscript Guide: https://flaviocopes.com/ecmascript/
4. Javascript Design Patterns: https://addyosmani.com/resources/essentialjsdesignpatterns/book/

5. Additional handouts, downloads, and resources will be provided where required.

Resources
The university provides many resources to help students achieve academic and artistic excellence. These resources include:

- [The University (and associated) Libraries](#)
- [The University Learning Center](#)
- [University Disabilities Service](#)

In keeping with the university's policy of providing equal access for students with disabilities, any student with a disability who needs academic accommodations is welcome to meet with me privately. All conversations will be kept confidential. Students requesting any accommodations will also need to contact Student Disability Service (SDS). SDS will conduct an intake and, if appropriate, the Director will provide an academic accommodation notification letter for you to bring to me. At that point, I will review the letter with you and discuss these accommodations in relation to this course.

Making Center
The Making Center is a constellation of shops, labs, and open workspaces that are situated across the New School to help students express their ideas in a variety of materials and methods. We have resources to help support woodworking, metalworking, ceramics and pottery work, photography and film, textiles, printmaking, 3D printing, manual and CNC machining, and more. A staff of technicians and student workers provide expertise and maintain the different shops and labs. Safety is a primary concern, so each area has policies for access, training, and etiquette with which students and faculty should be familiar. Many areas require specific orientations or trainings before access is granted. Detailed information about the resources available, as well as schedules, trainings, and policies can be found at resources.parsons.edu. If you are planning curriculum that makes use of specific resources should contact the Making Center in advance to coordinate.

Grading Standards
What follows is Parsons' grading standards. You should articulate your own policy for work taking other forms (e.g. presentations, critiques, visuals). Use clear criteria, specifying how both you and your students will know whether they have achieved the learning outcomes.

Undergraduate
A student's final grades and GPA are calculated using a 4.0 scale.

A [4.0]
Work of exceptional quality, which often goes beyond the stated goals of the course

A- [3.7]
Work of very high quality

B+ [3.3]
Work of high quality that indicates higher than average abilities

B [3.0]
Very good work that satisfies the goals of the course

B- [2.7]

Good work

C+ [2.3]
Above-average work

C [2.0]
Average work that indicates an understanding of the course material; passable
Satisfactory completion of a course is considered to be a grade of C or higher.

C- [1.7]
Passing work but below good academic standing

D [1.0]
Below-average work that indicates a student does not fully understand the assignments;
Probation level though passing for credit

F [0.0]
Failure, no credit

Graduate

A	Work of exceptional quality
A-	Work of high quality
B+	Very good work
B	Good work; satisfies course requirements

Satisfactory completion of a course is considered to be a grade of B or higher.

B-	Below-average work
C+	Less than adequate work
C	Well below average work
C-	Poor work; lowest possible passing grade
F	Failure
GM	Grade missing for an individual

Grades of D are not used in graduate level courses.

Grade of W
The grade of W may be issued by the Office of the Registrar to a student who officially withdraws from a course within the applicable deadline. There is no academic penalty, but the grade will appear on the student transcript.

Grade of Z
This grade is to be assigned to students who have **never attended or stopped attending** classes. Exceptions can be made if the student has completed enough work to warrant a grade (including a failing grade), and arrangements have been made with the instructor(s) and the Dean's Office prior to grade submission. The Z grade does not calculate into the student's GPA.

Grades of Incomplete
The grade of I, or temporary incomplete, may be granted to a student under unusual and extenuating circumstances, such as when the student's academic life is interrupted by a medical or personal emergency. This mark is not given automatically but only upon the student's request and at the discretion of the instructor. A Request for Incomplete form must be completed and signed by student and instructor. The time allowed for

completion of the work and removal of the "I" mark will be set by the instructor with the following limitations: [You should include one the following standards, depending on the level of your course].

Undergraduate students: Work must be completed no later than the seventh week of the following fall semester for spring or summer term incompletes and no later than the seventh week of the following spring semester for fall term incompletes. Grades of "I" not revised in the prescribed time will be recorded as a final grade of "F" by the Registrar's Office.

Graduate students: Work must be completed no later than one year following the end of the class. Grades of "I" not revised in the prescribed time will be recorded as a final grade of "N" by the Registrar's Office.

College, School, Program and Class Policies.

A comprehensive overview of policy may be found under [Policies: A to Z](). Students are also encouraged to consult the [Academic Catalog for Parsons]().

Canvas
Use of Canvas may be an important resource for this class. Students should check it for announcements before coming to class each week.

Electronic Devices
The use of electronic devices (phones, tablets, laptops, cameras, etc.) is permitted when the device is being used in relation to the course's work. All other uses are prohibited in the classroom and devices should be turned off before class starts.

Responsibility
Students are responsible for all assignments, even if they are absent. Late assignments, failure to complete the assignments for class discussion and/or critique, and lack of preparedness for in-class discussions, presentations and/or critiques will jeopardize your successful completion of this course.

Active Participation and Attendance
Class participation is an essential part of class and includes: keeping up with reading, assignments, projects, contributing meaningfully to class discussions, active participation in group work, and coming to class regularly and on time.

Parsons' attendance guidelines were developed to encourage students' success in all aspects of their academic programs. Full participation is essential to the successful completion of coursework and enhances the quality of the educational experience for all, particularly in courses where group work is integral; thus, Parsons promotes high levels of attendance. Students are expected to attend classes regularly and promptly and in compliance with the standards stated in this course syllabus.

While attendance is just one aspect of active participation, absence from a significant portion of class time may prevent the successful attainment of course objectives. A significant portion of class time is generally defined as the equivalent of three weeks, or 20%, of class time. Lateness or early departure from class may be recorded as one full absence. Students may be asked to withdraw from a course if habitual absenteeism or tardiness has a negative impact on the class environment.

I will assess each student's performance against all of the assessment criteria in determining your final grade.

Academic Honesty and Integrity
Compromising your academic integrity may lead to serious consequences, including (but not limited to) one or more of the following: failure of the assignment, failure of the course, academic warning, disciplinary probation, suspension from the university, or dismissal from the university.

Students are responsible for understanding the University's policy on academic honesty and integrity and must make use of proper citations of sources for writing papers, creating, presenting, and performing their work, taking examinations, and doing research. It is the responsibility of students to learn the procedures specific to their discipline for correctly and appropriately differentiating their own work from that of others. The full text of the policy, including adjudication procedures, is found on the university website under Policies: A to Z. Resources regarding what plagiarism is and how to avoid it can be found on the Learning Center's website.

The New School views "academic honesty and integrity" as the duty of every member of an academic community to claim authorship for his or her own work and only for that work, and to recognize the contributions of others accurately and completely. This obligation is fundamental to the integrity of intellectual debate, and creative and academic pursuits. Academic honesty and integrity includes accurate use of quotations, as well as appropriate and explicit citation of sources in instances of paraphrasing and describing ideas, or reporting on research findings or any aspect of the work of others (including that of faculty members and other students). Academic dishonesty results from infractions of this "accurate use". The standards of academic honesty and integrity, and citation of sources, apply to all forms of academic work, including submissions of drafts of final papers or projects. All members of the University community are expected to conduct themselves in accord with the standards of academic honesty and integrity. Please see the complete policy in the Parsons Catalog.

Intellectual Property Rights
The New School (the "university") seeks to encourage creativity and invention among its faculty members and students. In doing so, the University affirms its traditional commitment to the personal ownership by its faculty members and students of Intellectual Property Rights in works they create. The complete policy governing Intellectual Property Rights may be seen on the university website, on the Provost's page.