Web Advanced: Javascript

Parsons School of Design
School of Art, Media and Technology
Fall 2017

PSAM 3210; CRN 2864
Friday 12:10 p.m. - 2:50 p.m
Parsons 2 W 13th, Rm. 403

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Course Description
Throughout the semester, students will explore, design, and test their ideas for mobile and touch experiences through making sketches, storyboards, demos, and prototypes. We'll delve into the nuances of designing for touch screens, discuss navigation models and UI conventions, and explore how context of use and ergonomics influence design.
This course will focus on extending students' knowledge of code to web and cloud. Students will be learning JavaScript, the programming language of the Web. Students will be introduced to a variety of applications from user interactions, dynamic content organization, APIs, and the creation of desktop and mobile applications.

Learning Outcomes
By the successful completion of this course, students will be able to:
● Compose programs for the web and other contexts using the JavaScript programming language
● Understand the affordances and limitations of using software as a medium
● Read and understand the source code of both their own and their classmate's projects
● Independently research and learn unfamiliar technical topics
●Understand contemporary programming workflows and processes

Assessable Tasks

Assignment 1: Homepage (Due September 8)

Your first assignment will have two key elements: Index and Hello, world.

- *Index*: Take the github page that you set up in today's class and convert it into a living index of your work over this semester. Think about how this index will grow a change in reaction to the projects you will add.
- *Hello, world*: For the first link on your index, design and code a *hello, world* site. Find a piece of content whose copyright has expired, or that is under a creative commons license. This content should somehow be meaningful to you. Using your knowledge of HTML and CSS, design and code a re-publishing/remixing/re-interpreting of your chosen content that communicates your perspective and why you find this piece meaningful. This site should be multipaged.

Assignment 2 : Hidden Pattern (Due October 6)

Write a JavaScript program which uses loops and if statements to create a pattern in the Chrome Console. Consider how the program might change as it iterates through an array or number of increasing value. Attach your JavaScript program to an HTML page and post it to your GitHub repository prior to our next meeting.

Assignment 3: Loop (Due November 3)

Using your knowledge of Javascript so far, design and develop a single-serve website that utilizes cookies. Using at least one non-standard input (i.e. other than a mouse click), this website should exhibit a narrative loop in which the end-user feels like they are progressing despite engaging in a (endlessly looping) pattern of action.

Assignment 4: Final Project (Due December 15)

For this assignment you will be making an interactive and living website with at least one API and some sort of found static content. You may use any of the APIs we went over in class or one from your own research. Think carefully about how you contextualize and combine your content and what kind of interactions you supply the end-user with. How might the presentation of your selected content create meaning? How does the website react to the API over time? What do the type of user interactions imply about your perspective?

Final Grade Calculation

Assessment	%
Inclass and Takehome Assignments	50%
Final Project	30%
In-class Participation and Attitude	20%
TOTAL	100%

Course Outline

Below is a rough outline of the semester (subject to change).
newschool.edu/student-services/academic-calendar/ for the complete academic calendar.

Week	Date	Topic, Activity, Assignment
1	Sept 1	**Introductions/Basics/Working Environment** Introduction + Syllabus Overview HTML/CSS check-in Github demo *Assignment: Homepage*
2	Sept 8	**Javascript: The Basics** Review Homepage Assignment JS Demo: programming basics Setting up *Due: Homepage* *Assignment: Hidden Pattern*
3	Sept 15	**Javascript: The Basics pt 2** Review Hidden Patterns JS Demo: looping, timing, console *Due: Hidden Pattern* *Assignment: Hidden Pattern w/ movement*
4	Sept 22	**Javascript Advanced, JQuery** Review Hidden Pattern JS Demo: functions, JQuery, and manipulating CSS, Classes, and the DOM *Due: Hidden Pattern w/ movement* *Assignment: Hidden Pattern w/ interface*
5	Sept 29	**Troubleshooting and Debugging** Review Hidden Pattern How to research and solve problems related to your code Cookies, js libraries *Due: Hidden Pattern w/ interface* *Assignment: Hidden Pattern (final revisions)*
6	Oct 6	**Critique: Hidden Pattern** Class Critique: Hidden Pattern *Due: Hidden Pattern (revised)* *Assignment: Loop (Sketches)*

7	Oct 13	**Drawing libraries in JS** Introduction to p5.js, overview of alternatives (Paper.js, etc.) *Due: Loop Sketches* *Assignment: Loop (Live Sketches)*
8	Oct 20	**External APIs introduction** Overview of connected devices and how we might interface with them Work Session *Due: Loop Live Sketches* *Assignment: Loop (Prototype)*
9	Oct 27	**External APIs Pt 2** Review Loops API examples and references *Due: Loop (Prototype)* *Assignment: Loop (Revision)*
10	Nov 3	**Critique: Loop** Class Critique: Loop *Due: Loop* *Assignment: Final Project (Sketches)*
11	Nov 10	**Work Session** Work Session to review mock ups *Assignment: Final Project (Sketches Revised)*
12	Nov 17	**Work Session** Work Session to review sketches and begin dev. *Assignment: Final Project (Prototype)*
13	Dec 1	**Work Session** Work Session, check in on dev., troubleshooting *Assignment: Final Project (revised)*
14	Dec 8	**Work Session** Work Session check in on dev. *Assignment: Final Project (final revised)*
15	Dec 15	**Final Critique** *Due: Final Project, Documentation*

Readings
There is no assigned textbook for this course, however readings and tutorials will be assigned each week and available through the site class (f17webadvanced.leigler.tk).

Materials and Supplies
Students are required to obtain a free account at GitHub (http://github.com) and bring a laptop computer to class each week.

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

- The University (and associated) Libraries: http://library.newschool.edu
- The University Learning Center: http://www.newschool.edu/learning-center
- University Disabilities Service: www.newschool.edu/student-disability-services/

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 that students and faculty should be familiar with. 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.

Grading Standards

A student's final grades and GPA are calculated using a 4.0 scale. Please note that while both are listed here, the 4.0 scale does not align mathematically with the numeric scale based on percentages of 100 points.

A [4.0; 95 – 100%]
Work of exceptional quality, which often goes beyond the stated goals of the course

A- [3.7; 90 – <95%]
Work of very high quality

B+ [3.3; 87 – <90%]
Work of high quality that indicates higher than average abilities

B [3.0; 83 – <87%]
Very good work that satisfies the goals of the course

B- [2.7; 80 – <83%]
Good work

C+ [2.3; 77 – <80%]
Above-average work

C [2.0; 73 – <77%]
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; 70 – <73%]
Passing work but below good academic standing

D [1.0; 60 – <70%]
Below-average work that indicates a student does not fully understand the assignments;
Probation level though passing for credit

F [0.0; 0 – <60%]
Failure, no credit

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. A grade of W may also be issued by an instructor to a graduate student (except at Parsons and Mannes) who has not completed course requirements nor arranged for an Incomplete.

Grade of Z

The grade of Z is issued by an instructor to a student who has not attended or not completed all required work in a course but did not officially withdraw before the withdrawal deadline. It differs from an "F," which would indicate that the student technically completed requirements but that the level of work did not qualify for a passing grade.

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:

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 Office of the Registrar.

Divisional, Program and Class Policies
● 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.

● Participation
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.

● <u>Attendance</u>

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.

Whether the course is a lecture, seminar or studio, faculty will assess each student's performance against all of the assessment criteria in determining the student's final grade.

● <u>Canvas</u>

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

● <u>Delays</u>

In rare instances, I may be delayed arriving to class. If I have not arrived by the time class is scheduled to start, you must wait a minimum of thirty minutes for my arrival. In the event that I will miss class entirely, a sign will be posted at the classroom indicating your assignment for the next class meeting.

● <u>Electronic Devices</u>

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.

● <u>Academic Honesty and Integrity</u>

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 at http://www.newschool.edu/policies/# Resources regarding what plagiarism is and how to avoid it can be found on the Learning Center's website: http://www.newschool.edu/university-learning-center/student-resources/

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: http://www.newschool.edu/policies/#