

WDIM262 Web Scripting: JavaScript

Section A

Spring 2011, 3 credits
Thursdays, 6:00-9:45pm
Room 216

Instructor: Peter Wooley
Email: pwooley@aii.edu
Phone: 360.904.8516
Web: peterwooley.com

Office Hours: By Appointment
Final: Monday, 7:45 - 9:45pm
Required Text: None
Required Material: Storage Device

Course Description

Introduction to JavaScript and its use in a variety of tasks utilizing the Document Object Model built into web browsers.

Extended Course Description

With JavaScript, students will explore everything from storing and retrieving data to validating form input and animating page content, thereby gaining a solid introductory knowledge into how JavaScript works and interoperates within Web browsers and the Internet at large. With this, I aim to provide a jumping-off point for students to delve into JavaScript, the DOM, and the client-side's true power.

Course Objectives

Upon completion of this course, the student will be able to:

- Describe what JavaScript is and how it is implemented
- Define JavaScript operators, objects, and methods and demonstrate how they work
- Define language constructs
- Demonstrate the use of variables, functions, objects, and event handlers
- Identify JavaScript data types and define their use
- Define the Document Object Model (DOM) and demonstrate control over it
- Apply JavaScript to access, manipulate, and validate user-input data
- Use JavaScript to safely detect a browser's capabilities
- Create various JavaScript effects, such as hiding and showing content, timing events, and animating elements that involve a blending of HTML, CSS, and JavaScript

Prerequisite

WDIM161 *Web Scripting: CSS*

Grading

Participation 10%
Assignments..... 40%
Quizzes 10%
Midterm 15%
Final Project 25%

A grades are given for work that is truly excellent. It goes beyond the minimum criteria set, and is excellent in terms of craftsmanship, creativity and effort. Student shows that they challenge themselves in project design. Student exhibits commitment to expanding ideas, vocabulary and performance.

Grading, continued

B grades are given for work that is above average in quality, craftsmanship and creativity. It pushes a little beyond the minimum expectations.

C grades are given for work that is adequate. It meets the criteria set, by the minimum standards. Craftsmanship, quality and effort are average.

D grades are below the standards set. The student has either not exhibited an adequate understanding of the subject, or has not put forth the minimum effort. Craftsmanship and quality are poor.

Late Work

I will not accept late work that is turned in more than one week past the due date. Late work always receives a grade deduction of 10%. Feel free to redo work you are unsatisfied with—you may redo any assignment (provided you turned it in on time) for a higher grade. You cannot make up the final project.

Participation

- Be on time for class
- Be considerate of others work and presentations
- Participate in discussions
- If you miss the midterm or final I will not allow you to make it up unless you arranged it previously with me.

Campus Email Policy

Email communication will be through eCompanion. Be sure to check your Profile in eCompanion to update your email address so that you will receive course communications in a timely manner.

Lab Policies

Leave food and drink outside the class. Disciplinary action will be taken toward any student found using the equipment in an inappropriate manner, taking cell phone calls or surfing the web. Disruptive, disrespectful or rude behavior will not be tolerated.

Plagiarism

Presenting the writings, images or paraphrased ideas of another as one's own, is strictly prohibited at the Art Institute of Portland. Properly documented excerpts from other's works, when they are limited to an appropriate amount of the total length of a student's paper, are permissible when used to support a researched argument.

Attendance Policy for the Art Institute of Portland

Students who are absent from all scheduled classes over a 14-day period (2 weeks) are subject to automatic attendance suspension—from the Institute, not just from this course. This means the student is administratively withdrawn from all courses and cannot attend classes or continue in the current quarter unless he/she successfully appeals for reinstatement. Students who anticipate violating the attendance policy should contact their Academic Advisor or Academic Department Director immediately to discuss options such as withdrawing from the Institute or navigating the appeals process.

Absences Policy

Regular attendance is required for successful completion of this course. A student who misses the equivalent of three (3) classes will not pass this class. Exceptions for extenuating circumstances will be considered at the discretion of the instructor.

Adding, Dropping and Withdrawing from courses

Schedule Adjustment period: The schedule adjustment period runs through the first week of the quarter (ending at 5 pm on Monday of Week 2). To add or drop a course, the student must complete a schedule adjustment form, available from the Registrar's Office. The signature of the student's academic advisor is required to make any changes to the student's schedule.

Withdrawal (W/WF): The student who withdraws from a course or from the program during the first nine weeks of the quarter will be assigned a "W" code for each course. The "W" code is not used in computation of the student's grade point average; however, "W" credits are counted toward total credits attempted. The student who withdraws from a course or from the program after the ninth week of the quarter will be assigned a "WF" code for each course. The "WF" code is the equivalent of a grade of "F" and is used in computing the student's grade point average. Students wishing to withdraw from The Art Institute of Portland must file an official status change form with the Registrar.

Tutoring

Free, one-on-one tutoring is available to you across all subjects through the Tutoring Center. The goal of tutoring is to help you learn and master skills so you can then confidently apply them on your own. Tutoring is helpful for students at all levels—freshman through senior, whether you want to move from a failing to a passing grade or whether you want to cement an "A." Our tutors are faculty or, most often, fellow students who have excelled in the subject. You may find a tutor by visiting aidepartments.com or dropping by the Tutoring Center in Room 328 inside the Education Department. You may also contact Kathleen O'Brien (kpobrien@aii.edu) for tutoring for Liberal Arts classes or Mike Pacchione (mpacchione@aii.edu) for classes in the major.

Students with Disabilities

It is AiPD policy not to discriminate against qualified students with a documented disability in its educational programs, activities or services. If you have a disability-related need for adjustments or other accommodations in this class, contact the Dean of Student Services, Jason Clary, at 503-382-4710 or jclary@aii.edu.

Student Assistance Program

The college provides confidential short-term counseling, crisis intervention, and community referral services through the Wellness Corporation Student Assistance Program (SAP), <https://artinstitutes.personaladvantage.com>, for a wide range of concerns, including relationship issues, family problems, loneliness, depression, and alcohol or drug abuse. Services are FREE and available 24 hours a day, 7 days a week, at 1.800.326.6142. If you have any further questions or are ever in need of immediate on-campus assistance, please stop by the Student Services Office on the 2nd Floor.

Evacuation Procedures

Please proceed to the nearest exit when the strobe lights flash and an audible alarm occurs. AiPD's evacuation location is 10th and Davis; wait there for further instructions.

ALWAYS ASSUME ANY EVACUATION IS REAL.

Course Calendar

Week 1 (April 7th, 2011)

Discussion

- Introduction to JavaScript, “client-side powerhouse for the Web”.
- The <script> tag and you: a match made in heaven.
- What can it do, what can’t it do, and why?
- Commenting, storing data, and saving variables with our favorite: math!

Assignment 1: *Peering into the vast storehouses of JavaScript*, due Week 2.

Week 2

Assignment Due: Assignment 1

Discussion

- Grabbing and giving user feedback with alert(), prompt(), confirm(), and other available functions.
- Data types and type conversion.
- Types of Operators.

Assignment 2: *JavaScript Sensitivities and Swap-outs*, due Week 3.

Week 3

Assignment Due: Assignment 2

Quiz: Quiz 1

Discussion

- Flow control statements, boolean operators, and logic statements.
- The <noscript> tag.
- Arrays, Building and Working with.

Assignment 3: *Array Assignment*, due Week 4.

Week 4

Assignment Due: Assignment 3

Quiz: Quiz 2

Discussion

- Loops.
- Functions.

Assignment 4: *Making things Functional*, due Week 6.

Week 5 (May 5th, 2011)

Midterm Exam

Week 6

Assignment Due: Assignment 4

Discussion

- The Document Object Model (DOM).
- Events and Event Handlers.

Recommended Reading:

Quirksmode Introduction to the Document Object Model (<http://www.quirksmode.org/dom/intro.html>)

Assignment 5: *Event-driven Application*, due Week 7.

Course Calendar, continued

Week 7

Assignment Due: Assignment 5

Quiz: Quiz 3

Discussion

- Basics of parsing HTML Form data.
- Form validation – calling the javascript before sending the data to the server.

Week 8

Quiz: Quiz 4

Discussion

- jQuery Enlightenment.
- Dynamic HTML (DHTML): Using DOM Scripting to update, animate, and redefine the UI.
- Cookies—setting, getting, and deleting.

Assignment 6: Final Project, due Week 11.

Week 9

Quiz: Quiz 5

Discussion

- jQuery Enlightenment.

Week 10 (December 6, 2010)

Discussion

- Final Project individual critiques with Peter.

Week 11 (December 13, 2010)

Assignment Due: Final Project

Discussion

- Present Final Projects.
- Discuss the Triumphs and Failures of Web Scripting: JavaScript.