

SYLLABUS

Course Title & Number: Web 2 AAV355

Professor: Owen Roberts

Office Address: Adjunct office

Email Address: robersto@tcnj.edu

Office Hours: 2:30-3:30 pm Monday

Course Description

This course will cover dynamic web development using JavaScript and advanced HTML and CSS concepts. We will cover design and interaction with JavaScript and several popular JavaScript Libraries. We will move relatively quickly through the core concepts of JavaScript and focus on front end design.

Course Materials

Materials will include web based notes, videos and demos and readings. The text book *Learning Javascript (Second Edition)* from O'Reilly Media is optional.

Course Requirements

The course will consist of many one week assignments and one final assignment to be complete over the last several weeks of the semester. The assignments will build on material introduced in class and are designed to reinforce rapidly introduced concepts. Students will be responsible for maintaining documentation of all assignments on a student blog. Individual final projects will be executed over the final 4-5 weeks of the semester.

Course Purpose & Learning Goals

Students will learn advanced technical skills in web development and introductory concepts in computer science and programming. This course will provide a basic understanding of dynamic web development and design. The result of individual assignments and the final project will be fully functional websites.

Course Schedule

Lectures, demonstrations, studio work and assignments will be subject to change throughout the semester. See course page at tcnj.edu/~robertso/web2 for more details on individual weeks and assignments.

Classes will follow a similar structure, beginning with review of homework, a critique of a chosen work of web design or art using JavaScript, a lecture/demo covering new concepts each week, and studio time to begin work on assignments. There will be short weekly assignments that concepts from the weekly lectures.

Week 1 - Monday, January 27, 2014

Introduction and basics of JavaScript.

Event handlers, input, variables, grammar, expressions and literals.

File structure.

Brief JavaScript history.

Week 2 - Monday, February 3, 2014
Review of HTML and CSS.
Document Object Model manipulation in JavaScript.
Introduction to logic and loops.

Week 3 - Monday, February 10, 2014
JavaScript data types and functions.

Week 4 - Monday, February 17, 2014
JavaScript arrays and inheritance.
Introduction to jQuery library.

Week 5 - Monday, February 24, 2014
JavaScript Objects and basic regular expressions.
More jQuery.

Week 6 - Monday, March 3, 2014
Introduction to SVG graphics.
Introduction to d3 data visualization library.

Week 7 - Monday, March 17, 2014
Media using video and audio.

Week 8 - Monday, March 24, 2014
Animation with JavaScript.

Week 9 - Monday, March 31, 2014
Final project presentations.

Week 10 - Monday, April 7, 2014
Introduction to HTML5 canvas and JavaScript games.
Introduction to Paper.js library.

Week 11 - Monday, April 14, 2014
JSON and data structures.

Week 12 - Monday, April 21, 2014
Final project workshop.
Special topic tba.

Week 13 - Monday, April 28, 2014
Final project workshop.
Special topic tba.

Exam Week

Final critiques.

Grading

Students are expected to keep blogs documenting their work and show work in each class as well as comment on each other's work and in class critiques of web works. Final projects will be submitted as published websites or an archive of files. Students are responsible for keeping documentation, backups and archives of work.

Grades will be based on the following criteria:

Overall quality of work and completion of assignments: 25%

Participation in critiques: 20%

Participation in studio: 20%

Final project execution: 35%

Selected TCNJ Policies

TCNJ's final examination policy is available on the web:

<http://www.tcnj.edu/~academic/policy/finalevaluations.htm>

Attendance

Every student is expected to participate in each of his/her courses through regular attendance at lecture and laboratory sessions. It is further expected that every student will be present, on time, and prepared to participate when scheduled class sessions begin. At the first class meeting of a semester, instructors are expected to distribute in writing the attendance policies which apply to their courses. While attendance itself is not used as a criterion for academic evaluations, grading is frequently based on participation in class discussion, laboratory work, performance, studio practice, field experience, or other activities which may take place during class sessions. If these areas for evaluation make class attendance essential, the student may be penalized for failure to perform satisfactorily in the required activities. Students who must miss classes due to participation in a field trip, athletic event, or other official college function should arrange with their instructors for such class absences well in advance. The Office of Academic Affairs will verify, upon request, the dates of and participation in such college functions. In every instance, however, the student has the responsibility to initiate arrangements for make-up work.

Students are expected to attend class and complete assignments as scheduled, to avoid outside conflicts (if possible), and to enroll only in those classes that they can expect to attend on a regular basis. Absences from class are handled between students and instructors. The instructor may require documentation to substantiate the reason for the absence. The instructor should provide make-up opportunities for student absences caused by illness, injury, death in the family, observance of religious holidays, and similarly compelling personal reasons including physical disabilities. For lengthy absences, make-up opportunities might not be feasible and are at the discretion of the instructor. The Office of Academic Affairs will notify the faculty of the dates of religious holidays on which large numbers of students are likely to be absent and are, therefore, unsuitable for the scheduling of examinations. Students have the responsibility of notifying the instructors in advance of expected absences. In cases of

absence for a week or more, students are to notify their instructors immediately. If they are unable to do so they may contact the Office of Records and Registration. The Office of Records and Registration will notify the instructor of the student's absence. The notification is not an excuse but simply a service provided by the Office of Records and Registration. Notifications cannot be acted upon if received after an absence. In every instance the student has the responsibility to initiate arrangements for make-up work.

TCNJ's attendance policy is available on the web: <http://www.tcnj.edu/~recreg/policies/attendance.html>

Academic Integrity Policy

Academic dishonesty is any attempt by the student to gain academic advantage through dishonest means, to submit, as his or her own, work which has not been done by him/her or to give improper aid to another student in the completion of an assignment. Such dishonesty would include, but is not limited to: submitting as his/her own a project, paper, report, test, or speech copied from, partially copied, or paraphrased from the work of another (whether the source is printed, under copyright, or in manuscript form). Credit must be given for words quoted or paraphrased. The rules apply to any academic dishonesty, whether the work is graded or ungraded, group or individual, written or oral.

TCNJ's academic integrity policy is available on the web:

<http://www.tcnj.edu/~academic/policy/integrity.html>.

Americans with Disabilities Act (ADA) Policy

Any student who has a documented disability and is in need of academic accommodations should notify the professor of this course and contact the Office of Differing Abilities Services (609-771-2571).

Accommodations are individualized and in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1992.

TCNJ's Americans with Disabilities Act (ADA) policy is available on the web:

<http://policies.tcnj.edu/policies/viewPolicy.php?docId=8082>