

Pellissippi State Community College  
Master Syllabus

**JAVASCRIPT & jQUERY**  
**WEB 2300**

Class Hours: 3.0  
Laboratory Hours: 0.0

Credit Hours: 3.0  
Revised: Fall 2016

**Catalog Course Description:**

This course teaches developers how to use the features of the JavaScript language to design clientside, platform-independent solutions. Students learn how to write JavaScript programs, script for the JavaScript object model, control program flow, validate forms, animate images, target frames, and create cookies. Students will also understand and use the most popular applications of the JavaScript library jQuery.

**Prerequisite(s):**

WEB 2010 or CSIT 2230 or consent of instructor

**Textbooks(s) and Other Course Materials:**

*JavaScript & jQuery: The Missing Manual*, 3<sup>rd</sup> edition. David Sawyer McFarland.  
O'Reilly Media, Inc., 2014. ISBN-13: 978-1-491-94707-4.

**I. Week/Unit/Topic Basis:**

<u>Week</u>	<u>Topic</u>
1	Introduction to JavaScript
2-3	The Grammar of JavaScript
4-6	Adding Logic and Control to Programs
7	Introducing jQuery Understanding the Document Object Model
8	Events in JavaScript
9	Animations and Effects
10	Swapping Images/Rollovers/ Plug-ins
11	Enhancing Forms with JavaScript Validation
12	Expanding the UI (User Interface) with jQuery
13-14	Putting It All Together
15	Final Exam

## II. Course Goals\*:

The course will:

- A. Describe the origins of JavaScript and list its key characteristics.
- B. Communicate with users using JavaScript.
- C. Define and call JavaScript functions.
- D. Control program flow.
- E. Explain and use the JavaScript document object model.
- F. Identify and use the JavaScript language objects.
- G. Use JavaScript with HTML forms controls.
- H. Define and use the JavaScript library jQuery.
- I. Discuss security issues relevant to JavaScript.
- J. Create custom JavaScript objects.

\*Roman numerals after course objectives reference goals of the Web Technology program.

## III. Expected Student Learning Outcomes\*:

Students will:

1. Describe the origins of JavaScript (A)
2. Describe the differences between Java and JavaScript (A)
3. Differentiate among server-side and client-side JavaScript applications (A)
4. Embed JavaScript into HTML (A)\ Use the JavaScript comment tags (A)
5. Communicate with users through the alert(), prompt () and confirm () methods (B)
6. Define variables (B)
7. Define data types (B)
8. Use expressions (B)
9. Use operators (B)
10. Define keywords and reserved words (B)
11. Call functions (C)
12. Pass arguments to functions (C)
13. Return values from functions (C)
14. Define operator precedence (C)
15. Discern between global and local variables (C)
16. Employ the conditional operator (C)
17. Identify user events and event handlers (C)
18. Use methods as functions (C)
19. Use conversion methods (C)
20. Describe the JavaScript document object model (E)
21. Manipulate properties and methods of the document object (E)
22. Identify basic regular expressions and the RegExp object (F)
23. Deploy the Array object to create more efficient code (F)
24. Identify uses for the Date and Math objects (F)
25. Identify and use form controls (G)
26. Conduct form validation (G)
27. Link to a jQuery file on various servers (H)
28. Add jQuery to a Web page (H)
29. Use jQuery's on() function to manage events (H)

30. Explain cookies (I)
31. Discuss security issues relevant to JavaScript (I)

\*Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

#### **IV. Evaluation:**

##### A. Testing Procedures: 20% of grade

Students will be given a series of non-cumulative theory exams over textbook content during the semester. These exams will consist of true/false, multiple choice, short answer and essay questions.

##### B. Laboratory Expectations:

N/A

##### C. Field Work:

N/A

##### D. Other Evaluation Methods: 80% of grade

- Project and Assignments: 70% of grade. Students will be given several chapter-based assignments (a.k.a. case problems). The assignments will be completed in the course of reading and working through the textbook. The files will be uploaded to a student web server space or dropbox.
- Online Communication Tools and Participation: 10% of grade. Since this is an online class, attendance will be graded based on weekly discussion board participation. This participation will be based on quantity and quality of postings. Quality participation is required to pass this course.

##### E. Grading Scale:

A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D	60-69
F	0-59

#### **V. Policies:**

##### A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive

credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

#### B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

Please see the Pellissippi State Policies and Procedures Manual, Policy 04:02:00 Academic/Classroom Conduct and Disciplinary Sanctions for the complete policy.

#### C. Accommodations for Disabilities:

Students that need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Disability Services (DS) in order to receive accommodations in this course. [Disability Services](#) (<http://www.pstcc.edu/sswd/>) may be contacted via [email](#) or by visiting Alexander 130.