

Course and Instructor Information

Course Title: Web Development & Design I (CST K153)

Credits: 4

Format: Online

Instructor: Patrick Burton

Email: pburton@trcc.commnet.edu

Office Hours/Availability: see Blackboard Learn site or email to schedule an appointment

This course may contain copyrighted information.

All information is subject to change at any time. Check the course **Blackboard Learn** page for announcements and updates.

Course Materials

Online version of book should be obtained no later than the first day of classes since it will be used throughout the semester for content, concepts, labs, etc.

<https://learn.zybooks.com>

zyBook code: `COMMNETCST153BurtonFall2019`

Additional course materials including lecture notes, links, assignments, and handouts will be posted on this course's site within **Blackboard Learn**.

Required Software/Supplies

Unless otherwise stated, the course **zyBook & Blackboard Learn** site is required for assignment submissions. Email or hard copy submission **will not be accepted**.

HTML, CSS, XML, JavaScript and text-based web files must be readable from any ASCII capable editor such as Windows Notepad editor, Notepad++ editor and/or the MAC TEXTEDIT. Your HTML, *etc.* files must work with Google Chrome, Firefox, and Safari browsers that support HTML5 and CSS3. It is critical that no additional formatting or file modification be performed by the text editor used by a student. We will NOT use high-level web design/development tools like Dreamweaver. You may use an editor with HTML support like Notepad++ that does not do additional formatting and file modification.

Note: The Microsoft Edge browser may be used in this class but browsers like Chrome, Firefox, and Safari should be used to test submissions.

Blackboard assignments requiring documentation or presentations above and beyond HTML content generation must use:

- Microsoft Office Word 2010+
- Microsoft Office PowerPoint 2010+

Course Description

This course offers a preliminary treatment of Web Design and Development concepts that yield visible and audible results through web pages. The course includes an introduction to the World Wide Web, industry standard browsers, effective site and page design, HTML, XHTML, CSS, XML, web graphics and client-side scripting. The course includes detailed discussion of design practices, such as the appropriate use of text and graphics, font and color selection, meta-tags, navigation techniques, media formats, and methods of enhancing the user experience.

Goals

Upon course completion students will be able:

- Design/develop web pages that employ:
 - HTML
 - CSS
 - XML
 - JavaScript
- Structure and layout a web site
- Analyze, describe, design, & develop client-side web-based solutions

Course Outline/Schedule

Unit	Duration	Topics
1	1 Week	<p>zyBooks Chapter 1 – Introduction to Web Programming</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Explore the history of the Internet, the Web, & HTML • Use basic terminology correctly • Discuss ongoing trends • Articulate what HTML, CSS, and JavaScript are

2	1 Week	<p>zyBooks Chapter 2 – HTML</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Define a Web page head, body, & title • Comment HTML • Use HTML5 structural elements and attributes • Create unordered & ordered lists • Develop a basic table • Mark an image as a link • Create an image map • Understand URLs & link to resources on the Web • Handle special characters • Storyboard a web site
3	1 Week	<p>zyBooks Chapter 3 – More HTML</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Use HTML5 semantic elements • Define containers • Build a basic form • Embed audio & video • Understand uses of script & style tags
4	2 Weeks	<p>zyBooks Chapter 4 – Basic CSS</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Explain the history & theory behind CSS • Define a style rule • Understand style precedence & inheritance • Apply color using CSS • Change text & font styles • Manipulate the Box model
5	1 Week	<p>zyBooks Chapter 5 – Advanced CSS</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Layout pages using CSS • Use contextual selectors • Work with attribute selectors • Create more advanced effects • Style forms • Implement animations

6	1 Week	<p>zyBooks Chapter 6 – Basic JavaScript</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Articulate the history of JavaScript • Create a script element • Write text to a Web page with JavaScript • Use basic JavaScript syntax • Declare & work with variables & data types • Create & call a JavaScript function • Access an external JavaScript file • Add comments to JavaScript code • Utilize basic debugging techniques & tools
7	2 Weeks	<p>zyBooks Chapter 7 – JavaScript in the Browser</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Blend HTML with JavaScript • Validate a form with JavaScript • Manipulate the DOM with JavaScript • Handle events using JavaScript • Utilize JSON with JavaScript • Link to external JavaScript from a webpage • Build a webpage that utilizes JavaScript
8	1 Week	<p>zyBooks Chapter 8 – Advanced JavaScript</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Understand the basics of asynchronous JavaScript • Draw with JavaScript • Comprehend function scope • Develop classes using JavaScript
9	2 Weeks	<p>zyBooks Chapter 9 – jQuery</p> <p>Learning Objectives/Goals:</p> <ul style="list-style-type: none"> • Utilize jQuery plugins • Combine selectors with jQuery • Update styles with jQuery • Handle events using jQuery • Manipulate the DOM with jQuery • Build a web page that uses jQuery

10	1 Week	zyBooks Chapter 10 – Mobile Web Development Learning Objectives/Goals: <ul style="list-style-type: none"> • Create a responsive web design • Develop with Bootstrap • Demonstrate the use of text, images, & media in a responsive design
11	2 Weeks	XML & XHTML Learning Objectives/Goals: <ul style="list-style-type: none"> • Understand the rationale behind XHTML • Compare & Contrast HTML to XHTML & how it relates to XML • Define well-formed & valid XML documents • Describe the basic structure of an XML document • Compare schemas & DTDs • Apply a schema to an instance document • Integrate a schema & a style sheet (XSLT or CSS) with an instance document

Note: The foregoing course outline is subject to change as conditions warrant.

Course Requisites

1. **Attendance:** Students are expected to be punctual and responsible for all assigned **zyBooks** reading materials and any additional course content and discussions posted on the course **Blackboard Learn** site.
2. **Participation:** Active and positive online discussion participation is expected.
 - a. All **zyBooks Reading & Challenge Exercises** are to be completed within **zyBooks** on or before the lab due date/time.
 - b. A large part of the learning experience will come from discussion of problems (via the Blackboard Learn discussion forums – minimum 1 per unit) and techniques presented in the reading, notes, and from the lab, worksheet, videos, and homework assignments.
3. **Assignments:**
 - a. Assignments are assigned weekly by unit and include labs, worksheets, exercises, assessments, and additional homework problems.
 - b. All assignments are designed for the student to explore, analyze, and utilize various knowledge, skills, and abilities acquired and reinforced by each unit’s readings and the posted content and related research items.
 - c. All assignments are to be your own work and due by the **date and time** posted within **zyBooks** (online labs) and for worksheet, exercise, discussions, homework, *etc.* via the unit assignment links in the course **Blackboard Learn** site.
 - d. Assignments are graded on **both** the quality of the required written documentation and on the quality of the actual web page/web site code (*e.g.*, HTML, CSS, *etc.* files), comments, *etc.*

- e. To receive full credit, assignments must meet all requirements and specifications, *and* must do so within the quality guidelines described in the assignment text and class discussions.
 - f. It is recommended that individuals start working on assignments as soon as it is released, and ask questions several days before due if additional explanations are needed on a specific assignment.
4. **Electronic submission of assignments:** Written documentation and answers to questions pertaining to an assignment *must* be submitted using Microsoft Word 2010+ (.doc or .docx) formats unless otherwise specified.
- a. **All documentation, code, scripts, etc. shall be submitted electronically** using the appropriate course **zyBooks** or **Blackboard Learn** site assignment link.
 - b. Remember, because clocks do not always match, you should be submitting your assignment at least 15 minutes before it is due. Extenuating circumstances should be discussed with the instructor **prior to the due date**.
 - c. It is the student's responsibility to check before the deadline that the files they have uploaded have been effectively submitted and are not unreadable or corrupted.
 - d. Students should check that their files have been correctly submitted by downloading them and testing that they can be opened and/or compiled and tested.
5. **Quizzes/Tests:** Quizzes covering the material in the reading, assignments, and/or our discussions may be unannounced, while tests will be announced and scheduled at least a week in advance.
6. **Exam/Project:** There will be a final programming project that will encompass multiple facets of the material covered. To receive full credit, multiple submission milestones must be met. Additional project and submission details will be provided via the course **Blackboard Learn** site.
7. The instructor reserves the right to change topics and dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner (using announcements and updates within **Blackboard Learn** site).

Course Grading

- Submission of assignments after the deadline will result in 0 points for that assignment (includes labs, discussions, worksheets, quizzes, tests, *etc.*).
- **Final Exam/Projects will not be accepted late.**
- Extenuating circumstances should be discussed with the instructor at least one week prior to any due date or as soon as feasible depending on the situation. Additionally, other college accepted correspondence or paperwork may be required for justification.

Summary of Course Grading:

Course Component	Points
Participation/Discussions	130
Unit Quizzes	150
Unit Labs	150
Worksheets/Exercises	120
Tests	110
Project Analysis & Digication Upload	60
Project	280

Grading Scale:

Total Points	Letter Grade
930-1000	A
900-929	A-
870-899	B+
830-869	B
800-829	B-
770-799	C+
730-769	C
700-729	C-
670-699	D+
630-669	D
600-629	D-
<600	F

Student Responsibilities

Online Learning/Digication Portfolio

All students are required to maintain an online learning portfolio in Digication that uses the college template, in as much as it is pertinent and supported by outcome products of this course. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

Withdrawing from the Course

A student who simply stops submitting work will receive the grade earned on that work, usually a failing grade. To receive a "W" grade instead, apply for a withdrawal (*check with registrar for last date to withdraw*). A "W" will be entered on the student transcript. An "N" (implicit withdrawal) may be entered for a student that stops submitting work before 60% of the class is completed but it will still show up as an "F" on your transcript.

Academic Resources

Log In & Net ID

<https://www.trcc.commnet.edu/learning-resources/educational-technology/student-resources/5-steps-for-getting-started/>

General Resources Web Page for eLearning, Blackboard, Online, Hybrid, Help Desk

<https://www.trcc.commnet.edu/learning-resources/educational-technology/student-resources/>

Academic Calendar

<https://catalog.threerivers.edu/content.php?catoid=5&navoid=294>

Student Resources

Advising & Counseling

<https://www.trcc.commnet.edu/student-services/advising-and-counseling-center/>

Sexual Misconduct

<https://www.trcc.commnet.edu/student-services/sexual-misconduct-resources-and-education/>

Student Handbook

<https://www.trcc.commnet.edu/wp-content/uploads/2017/06/trccstudenthandbook.pdf>

Policies

General Policies

<https://catalog.threerivers.edu/content.php?catoid=5&navoid=240>

Academic Integrity

https://catalog.threerivers.edu/content.php?catoid=5&navoid=240#Academic_Integrity_Policy

Faculty and Staff

<https://www.threerivers.edu/directory/>

Weather & Cancellations

1-860-215-9000 Press 1 for College Closing Announcement -or- <https://www.threerivers.edu/> for posted announcement