

CSCI 1210: Essentials of Web Development

Credit Hours: 3

Instructor Info

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Course Purpose / Goals

An introduction to the World Wide Web as both a user and a developer. This course is designed to take the user from creating Web pages to designing a multi-page Web site. Emphasis will be on the use of existing software applications that generate Web-ready code. Other topics will include style principles, HTML coding, multi-media integration, and browser plugins. Laboratory use of software is an integral part of this course.

Course Goals: This is an introductory course with the goal of teaching the fundamental design principles of designing web pages using contemporary markup language. This includes:

- terminology
- basic web-page coding syntax
- web page maintenance issues
- basic accessibility issues
- design principles regarding information architecture
- design principles regarding page layout
- the use of graphics in web pages
- cascading style sheets (CSS)
- user input using forms

Prerequisites

Students must have completed or be currently enrolled in CSCI-1100 (students should be able to execute programs, use email, use the web, copy files and manage files and folders at a minimum).

Major Topics

- FTP and servers
- Text editors
- Web history and terminology
- HTML
- HTML tags & text formatting

- Links
- Graphics
- Image links
- Image types
- Tables
- Graphic design basics
- Site design
- Page design and layout
- Cascading style sheets (CSS)
- Forms
- Introduction to PHP

Learning Outcomes

Upon completion of the course, the student will have developed and demonstrated a clear understanding of the following topics:

- the basics of Hypertext Markup Language (HTML) for the purpose of creating and debugging web pages (Student Outcome IT-1*);
- the process of planning and creating successful web pages so that the needs of the target audience and the objectives of the client are met (Student Outcome 1c , 4b, IT-1, IT-2, IS-2);
- web site design skills necessary to produce intelligible structure for quick and easy access to information for both expert and novice users (Student Outcome 1c, 4b);
- the types of graphics, their characteristics, and the means for selecting the right graphics for the right application (Student Outcome 1c*, 4b*);
- the types of multimedia and the methods for incorporating them into web pages (Student Outcome IT-1a, T1-b);
- the web design lifecycle and its application in the creation of successful websites (Outcome 2a, 5a); and
- the tools available to web designers and how to use them (Student Outcome 5c, IT-1)

Grade Assignment

Category	Weight
Labs	20%
Quizzes	10%
Homework	20%
Project	20%
Midterm	15%
Final	15%

Readings

Textbook:

- Duckett, J. (2014). HTML & CSS: Design and Build Websites. Indianapolis, IN: John Wiley & Sons. (ISBN: 978-1-118-87164-5)(Required) Its companion website, <https://www.htmlandcssbook.com/extras/>, includes the code samples from the book and a nice Extras & Tools section with videos. The 2011 edition is acceptable and available for free through the Sherrod Library eBooks (Safari) collection

Suggested Resources:

- W3Schools - <http://www.w3schools.com/> (excellent resource for both HTML and CSS, among other things)

Assignments

Exercises and assignments are an integral part of the course. It is through these assignments that you apply the material taught.

A due date is given for each assignment. After the due date, an assignment will not be accepted. If, in the opinion of the instructor, a reasonable effort has been expended on the assignment, but it is still incomplete, partial credit might be given. The instructor reserves the right to refuse to accept any assignment that he or she judges to be less than a reasonable attempt at completing the assigned work or that he or she judges to be copied (or paraphrased) from another.

For your semester project, you will be assigned to a 4 or 5-person team. In these cases, each team will turn in one solution and all team members will receive the same grade except for cases in which one member makes little or no contribution to his/her team's solution. In all cases, each student is responsible for understanding all aspects of the solution submitted.

Weekly Quizzes / In-Class Lab Exercises

Student understanding of course topics will be measured through weekly quizzes and graded lab exercises. A graded lab exercise may be given in lieu of a quiz, in which students will be given an exercise to complete in a specified time frame (generally two hours or less).

Quizzes will be administered via ETSU's Desire 2 Learn (D2L) platform and will consist of multiple choice, true/false, fill in the blank, and short answer questions.

Weekly quizzes and graded lab exercises cannot be made up. Therefore, missing class or arriving late to class on the day that a quiz/graded lab exercise is given will result in a grade of 0 being recorded for that quiz/graded lab exercise.

Students will also be given in-class lab exercises to complete each week in the scheduled lab time for the course. These exercises may NOT be completed outside of the lab time. Because these are designed to help you learn the material presented, you will have the opportunity to use any course materials and ask a classmate or your instructor for assistance (this is not the case for the quizzes).

These are graded on the following scale: Completed and

- Correct (100%)
- Completed with errors (Page displays but there are errors in the code):
 - 1-2: 90%

- 3-5: 85%
- 6-10: 80%
- 11+ 75%
- At least 50% completed (50%)
- File(s) uploaded to server, but either don't display or display with major errors
- Incomplete or did not attempt (0%)

Exams

Two exams will be given throughout the semester. These will be longer than quizzes and will include required demonstration of learned code and troubleshooting skills. The final exam will be a comprehensive exam.

Late Work

Work turned in after the specified due date will not receive a grade.

Attendance

See the BlueSky student handbook.

Arriving late may constitute an absence.

If you are absent, you are still responsible for material, assignments, finding out what was missed, making sure that any work due that day gets to the instructor, and getting any assignments or materials handed out during your absence so you can prepare for the next class.

Software

This course relies on the following software being installed on your laptops.

- Visual Studio Code
- Filezilla
- GIMP
- 7-Zip

During our first class, I will show you a website where you can download all of the above as a single installable package.

I would also recommend against Microsoft Edge as the web browser for this course. We'll discuss browser issues throughout the semester.

Content

Content will be provided to you through the course website listed at the top of the syllabus. Much of the content will also be available on D2L or linked from D2L to the website. Quizzes and exams will also be hosted on D2L (in part or whole).

Semester Project

There is a major assignment each semester. The semester project is a team assignment. The teams will be required to find a client and develop a web site for the client, based on the client's requirements. Instructions are available on the class website (<https://csci1210.com/project.php>) and will be discussed further over the course of the semester. To successfully complete the assignment, each team will have to communicate with their client and each other on a regular basis to apply the design and development concepts we will be learning this semester. Many clients in past classes have expressed an interest in continuing development of their sites beyond the semester's conclusion.

One issue with academic team projects, historically, has been participation. Some members of a given team may not contribute a fair share to the effort. As a result, toward the end of the semester, each student will be required 'sign' his or her work and to complete an evaluation of their peers' contribution to the project. The evaluation totals for each student within each team will be averaged and, in the event a given student's contribution to the project was sub-par, a grade decrement will be applied to the student's overall project grade. The degree of the decrement will be determined on a sliding scale and will range from 0 – 200 points. In other words, anyone who contributes nothing to the project effort will receive a 0, regardless of what the overall team project grade is evaluated to be.

The project represents a major portion of each student's overall grade for the semester and should be taken seriously.

Expectations

Students and instructors should have expectations of one another, many of which are mutual. Students should expect the instructor to be in class on time, to be prepared, to be attentive to students, to be available to answer questions and provide help related to the course, and to make a genuine effort to help students achieve course objectives. On those rare occasions when the instructor must miss class, students should expect suitable arrangements for the class to continue in the instructor's absence. Students should expect the instructor to devote considerable time and effort to the course.

Similarly, the instructor expects students to be in class on time, be prepared, be attentive and participate in class, complete assignments on time, make a genuine effort to meet the course objectives, and devote considerable time and effort to the course. Be prepared to spend a minimum of 2-3 hours outside of class for each hour in class.

You are encouraged to ask appropriate questions and to participate in class discussions and activities. You may learn as much from one another as from the instructor. If you are confused about some point, chances are that others are also confused and will appreciate that you asked for clarification.

Academic Integrity

East Tennessee has in place an official policy regarding Academic Integrity and Misconduct, which you should review. The instructor will apply/enforce this policy for this class should circumstances require.

With this policy in mind, you are encouraged to discuss material addressed in the course, including assignments, with members of the class and others. Helping one another find and understand problems in assignments is permitted as long as an honest individual attempt has been made to solve the problem. Everyone, however, must do his/her own work. Completing an assignment "by committee" and submitting it as an individual work is academic misconduct unless the assignment has been designated as a team assignment. Your name on submitted work is an affirmation that the work is yours.

As the session progresses, I will try to make some advanced code (mostly JavaScript and/or JQuery) available for you to use in your semester projects, if you wish. Alternatively, you may wish to look for (open source) material on the web on your own. This is acceptable, as long as you 1) add comments to the code that indicate your understanding of what it does and 2) place a citation, either in comment form embedded in the code or displayed on the page, attributing it to its original author(s). Failure to follow these directives will result in a charge of academic misconduct (described below).

Policies for this Course

All work **MUST** be your OWN work! This applies to homework assignments, quizzes, tests and in- class lab exercises.

In cases of academic misconduct, the following rules will apply and shall be enforced:

1. The 1st offense will result in a grade of 0 assigned for the assignment/exercise/quiz/test for all involved and a formal Academic Misconduct Charge will be filed with the University according to the University's Academic Misconduct Policy.
2. A 2nd offense will result in an 'F' for the course and a formal Academic Misconduct Charge will be filed with the University according to the University's Academic Misconduct Policy. A second Academic Misconduct Charge throughout the entire time that the student is enrolled at ETSU can result in expulsion from the University

Artificial Intelligence

See my Artificial Intelligence Addendum on D2L.