CSCI 1720 Intermediate Topics in Web Design

Credit Hours: 3

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Course Purpose/Goals

This course will cover topics that will help students develop professional and innovative (client-side) Web applications, expanding the content of CSCI 1210 to provide a more comprehensive overview of front-end web design and development. Topics will include current tools and techniques to increase the usefulness and effectiveness of Web sites, advanced Web style guidelines, integration of current Web standards, graphic design theory, writing for the Web, dynamic functionality, and real-world implementation considerations.

Course Description (from the 2022-2023 Catalog)

"Focuses on front-end web development. Topics include advanced Hypertext Markup Language (HTML) and Cascading Stylesheets (CSS 3); use of CSS frameworks for development streamlining; writing for the web; CSS preprocessing; introduction to JavaScript and jQuery; and introduction to full-stack web development."

Prerequisite

- ✓ CSCI 1210 (or CSCI 1710)

Major Topics

- HTML 5 and CSS (2 & 3)
- Typography
- Responsive design / Mobile-first design
- Browser-based developer tools
- Graphics/writing for the Web
- CSS frameworks
  - ✓Bootstrap
- CSS Animation
- CSS preprocessors
  - ✓SASS / LESS
  - ✓Installation (Node.js & npm, see below)
  - ✓Command-line evocation
  - ✓Modular and reusable code
- JavaScript
  - ✓Intro to client-side web programming
  - ✓Document Object Model
  - ✓Console output
  - ✓Syntax
  - ✓Variables/operators/functions
  - ✓Event handlers
  - ✓Asynchronous JS
  - ✓Callbacks / Promises
  - ✓Troubleshooting
- Node.js
  - ✓Introduction
  - ✓Project initialization
    - package.json

- package-lock.json

✓Dependencies
✓Installing software packages (npm)
✓Project filesystem structure

Learning Outcomes

The course is intended to instruct students on the fundamental principles used in designing and controlling the appearance, functionality, and layout of a web page using current technologies, including Bootstrap, CSS 3, SASS, JavaScript, and Node.js.

Major Assignments

This class's objectives will be met through the following types of assignments:

- Exams to assess the students' mastery of the material
- Weekly quizzes
- In-class labs
- Homework assignments
- "Online quizzes"

Percentage	Letter
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
60-66	D
0-59	F

Grade Assignment and Scale (approximate)

22%	Homework
30%	In-class labs
6%	Quizzes
7%	Online Quizzes
36%	Midterm/Final

Contacting Me

There are two best ways to contact me throughout the semester: email and Discord. Though my office phone number is listed on this document, because of the current state of transition between Nicks and the Brinkley Center, I am rarely in my office to accept phone calls. Besides, they went and changed the phone system again and I *still* haven't figured it out.

Email is most common: ramseyjw@etsu.edu. I have a Discord channel set up, though, which often will result in a quicker response. I usually have Discord running on my phone, well, as well as Outlook, but the phone will alert me when a Discord message arrives. I will share the invite link once the semester begins. Having said that, if I'm in class when you send me a message, I will respond as soon as possible after the class is over.

I am also available, via Zoom, most Saturdays and Sundays (by appointment, of course). On occasion, I've hosted optional classes to assist students (usually Sunday at 2:00).

Update: At the time of this writing, my office is still at Nicks Hall; but we are supposed to be moving into our new office spaces at the beginning of the semester. My assigned office, whenever the dust settles, will be Room 110-A in the Brinkley Center. We'll have to be flexible about that…but I will (almost) always be available if you need me.

Website

Most of the course content will be provided via a website: https://csci1720.net. It is here that your lab instructions will be presented, along with examples, assignments, and other class resources. D2L will be used to host quizzes/exams and to include links to lecture/lab videos. Each of you will have an account on the server that you will use to complete assignments and to upload/submit your work.

Required Lab Materials

Some storage media to use in the lab (Don't use the Z:\ drive!) (i.e., thumb drive or external hard drive). You will have assignments to work on outside of lab and will need to be able to take your files with you.

If you will be doing the course assignments on your personal computers, how you choose to store the associated files is up to you. I recommend against using cloud storage (e.g., Google Docs. OneDrive seems to work ok, but I'm still recommending external storage for this class. Cloud drives are better about file path resolution than they used to be, but there still may be problems that make it more difficult to do some of the exercises we have scheduled. Whatever media you choose, you should create a folder for your work named ***your_etsu_id*.csci1720.net**, e.g., **ramseyjw.csci1720.net**. This will mirror the file structure of your accounts on the class server (see above). Inside that folder, you can create subfolders named 'labs' and 'homework.' Other subfolders can be created as needed, but you will need those two at least (we'll also cover this in our first lab).

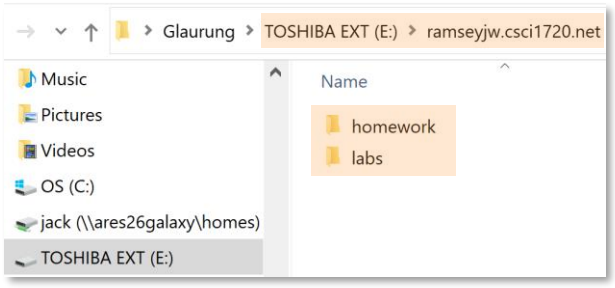

Figure 1: Configured workspace

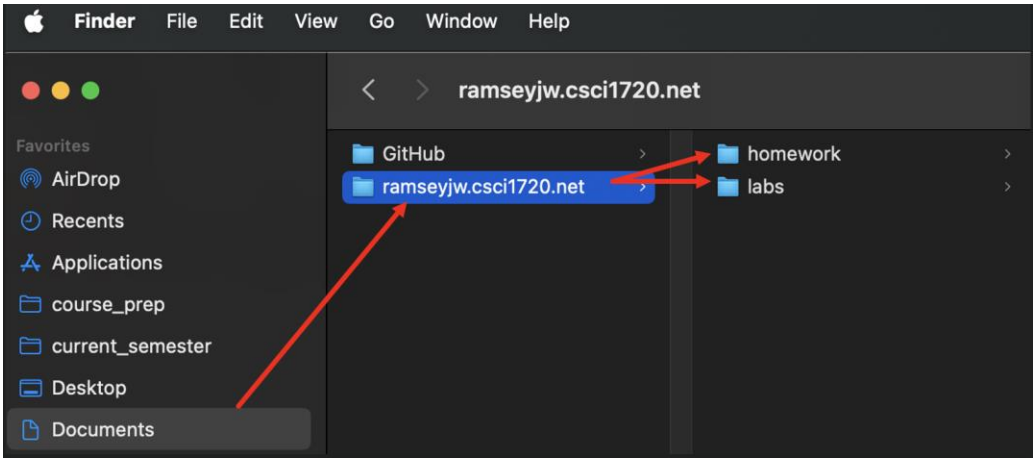

Figure 2: Setup on Mac

Expectations

Students and instructors should have expectations of one another, many of which are mutual. Students can reasonably 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 I must miss class, students should expect suitable arrangements for the class to continue in my 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. There will be a number of homework assignments for you to complete this semester.

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.

Use of Personal Computing Devices During Lecture/Lab

This class follows a "Lecture/Lab" format. During lecture, I expect you to be attentive and to ask questions. We'll be meeting for lecture and lab in the Brinkley Center. During lecture, you may not log in to the lab computers (unless otherwise instructed), nor make use of personal computers. You can, and I encourage you to do so, bring paper and pencil/pen and take notes during lecture.

During lab periods, you may use your personal devices if you wish. However, you may not use personal computers or other devices in such a manner as to be disruptive to your classmates. I will be the sole arbiter of what activities are/aren't "disruptive." If you are in any distracting your classmates, you will be asked to moderate your activity. Failure to comply will result in a '0' for that day's lab assignment.

If you choose to use your personal device to complete lab assignments, and many students do, please consider that your kindly instructor is getting on in years and has difficulty reading the microscopic font sizes some students seem to prefer. If you end up needing help -- no problem! -- but I might (usually) have to get you to let me use your chair and actually see your work.

Cell Phones: Students are responsible for ensuring that their cell phones are set to "silent" or "vibrate" for the duration of each lecture meeting. Texting or other use of cell phones during lecture is prohibited. However, if you receive call that is or may be important, you shall excuse yourself from the room before answering the call so as to avoid disrupting the class. Anyone caught texting or browsing on his or her phone (during lecture) will be given a warning. A second time: will be asked to leave the classroom for the remainder of the class meeting.

Assessment Policies

- During any in-class quizzes and tests, cell phones shall be set to silent and either placed face down on the desk or stowed in a book bag or purse.
- Unless otherwise instructed, quizzes/exams are to be completed without reference to outside sources (Google, W3Schools, old lab code, etc.).

The Midterm and Final Exams will be administered in class (See the 2025 Fall Schedule document for dates). The Midterm exam will consist of two parts: a Q/A (traditional – M/C, T/F, etc.) part and a coding part. The Final Exam will be Q/A only. Exam materials will be hosted on D2L and will be made available at the beginning of the exam period.

The use of Artificial Intelligence (e.g., ChatGPT or Grok) and/or search engines, cell phones, notes, or any outside materials during exams is **expressly prohibited**, unless specifically permitted by the instructor (it won't be). Any student caught violating this policy will receive a grade of '0' for the exam and will be charged with Academic Misconduct (see below) in accordance with University policy.

Academic Integrity Policy

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.

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.

You may wish to look for (open source) material on the web on your own for some assignments. 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 involving 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.

Attendance Policy

East Tennessee State University provides students/faculty with an official attendance policy, which will be enforced in this class.

Class attendance is required. If you miss a lecture, it is your responsibility to get a copy of the notes (assignments, announcements, etc.) from your classmates/the class website. Make-up exams will be given for tests only in case of a documented legitimate excuse (illness, athletic event (for student athletes), other university-sanctioned events, etc.) You should contact me as soon as you know you will miss the test. Make-up for the final will be given in exceptional circumstances. Academic honesty standards will be enforced. No collaboration on tests is allowed.

If you miss a class as a result of an illness requiring medical care or some other legitimate emergency, you can meet with me once you're the crisis has passed with your doctor's excuse or other documentation of the event. Then we can arrange for you to make up missed work.

Unless otherwise specified, each week's lab assignment will be due by the end of the scheduled lab period.

Because of the strong correlation between attendance and success in this course, *the following attendance policy will be applied:* Absences beyond **3** may directly affect your final grade as follows:

ABSENCES	PENALTY
1-3	None
4	- 5 points applied to final grade average
5+	Additional -5 points per absence applied to final grade average

<=3	4	5	6	7	8	9	10+
0	-5	-10	-15	-20	-25	-30	(n-3)*5

You must attend at least two-thirds of a day's scheduled class time to be considered present. Repeated lateness (be advised: chronic tardiness is one thing that really annoys me) or early departures may be counted as an absence at the discretion of the instructor and following a warning. The instructor may or may not call roll and will apply the above policy at his discretion.

Text

There is no assigned text for this class. However, I've found the text for CSCI 1210 to be a great ongoing reference resource in the past:

- ✓ Duckett, J. (2014). HTML & CSS: Design and Build Websites. Indianapolis, IN: John Wiley & Sons. (ISBN: 978-1-118-87164-5)

- ✓ Krug, S. (2014). Don't Make Me Think, Revisited. New Riders. (ISBN: 978-0-321-96551-6)

As always, W3Schools is also an excellent resource for research and tutorials:

W3Schools - http://www.w3schools.com/ (Excellent resource for both HTML and CSS)

Late Work

Students will be provided ample time to complete their assignments. The instructor will be working through many of them with students.

Late submissions for labs and homework assignments will not be accepted. Quizzes will be presented via D2L and must be completed within the allotted timeframe.

Face it, folks: In the workplace, failure to meet deadlines is rarely, if ever, acceptable. My class is no different.

Conclusion

Ending this on a more upbeat note, this is a fun class, IMO. We cover several relevant topics in front-end web development that also touch on topics you will encounter in future classes (e.g., CSCI 2910 and CSCI 3110). The cool thing is that we'll be able to see results almost immediately, which, to me, makes it a lot of fun. As with most things in life, you can expect to get as much out of it as you are willing to put into it (GIGO).