

CS 1100: Exam-1 Guide

Following is a list of topics which may be addressed in the exam.

Overall tips:

- I will not ask you for dates, people's names, or historical facts.
- I will not ask you for precise definitions.
- I will not expect you to remember CSS property names (for example, I don't expect you to commit to memory that to change the text's color, we use color, not text-color).
- Best way to prepare: carefully review each homework and each lab. Review key parts of the readings (don't reread the entire textbook!)
- Be prepared to provide short answers to conceptual questions, look for obvious errors in provided short snippets of code, and, possibly, to implement simple examples of HTML and CSS

Internet & WWW: Essential background

- Understand the difference between the Internet and the World Wide Web
- Concepts: (expected: not definitions, but a basic understanding of what these are)
 1. URL
 2. HTTP
 3. web server
 4. web browser
 5. HTML
- Client-server model of communication (a very basic understanding of the process that starts with you typing in a URL (or clicking a link), and ends with a web page displayed on your screen); and how the 5 items in the list above are involved in it.

HTML

- What is markup
- Who decides what tags or features the next version of HTML should have (hint: W3C releases specs that are formally referred to as "recommendations", which are typically followed by all major browser manufacturers)
- What's the difference between an HTML tag and an HTML element
- HTML syntax (tags, attributes, opening and closing tags, proper tag nesting, etc.); I may ask you to identify an obvious error in the provided code
- HTML document structure: html/head/body, and what they might contain (don't memorize, but be prepared to identify what's what and/or find an obvious error in the provided code)
- How to make a simple table (I will not ask you to make spans)
- How to make a simple ordered and unordered list.
- How to display an image (the "img" tag)
- How to make a link (the "a" tag); I may ask you to link to a file that is located in a subfolder
- I may ask you to implement something simple

HTML + CSS

- Why we need CSS?
- What do we mean when we say HTML is for defining structure, CSS - for presentation?
- Where can we place CSS code? Where do we prefer to place it? Why?
- CSS syntax (selector, curly braces, property/value pairs separated by colons and terminated by semicolons)
- I may ask you to identify an obvious error in the provided code
- Difference between padding and margins
- Difference between block-level and inline HTML elements, and how CSS can be used to

- When to use a "div" element or a "span" element? (I will not ask you to remember semantic elements, such as section, article, nav, aside, etc...)
- How we specify color (hint: some can be specified using their name; but much more using specific RGB (red green blue) values. We typically do it in hexadecimal (that's base-16 - but no need to remember this!). The format is `#abcdef` where `#` says that what follows is a hex number, and `ab` is the value of red, `cd` is the value of green, and `ef` is the value of blue. There are 256 possible values of each, so the total number of colors that can be represented by a (typical) computer is: $256 \times 256 \times 256 = 16 \text{ million } (16,777,216)$)
- What are CSS selectors; what kind you've used so far; why do we need different selectors?
- CSS layout: what happens when you float an element? (I will not ask you about different types of positioning or the details of how to construct multi-column layouts)
- I may ask you to implement some simple styling

Responsive design

- What is it and why it is useful