

## CSCB20 A2 - Report

For the second CSCB20 assignment, our group set out to redesign Dr. Anna Bretsher's CSCB63 course website. As we worked on our version of the course website, we found some issues and problems with the original site which we will highlight here. In this report, we will also address how and why we corrected these issues and finally we will write about challenges of our own that we faced as we built the website and how we dealt with them.

When we opened <https://mathlab.utoronto.ca/bretscher/b63/> for the first time, what we immediately noticed was the awkward white space to the right of the page. While this does not really affect the user experience of navigating the pages, it seems completely unnecessary and ruins an interesting and unique header and sidebar design. Next, as we clicked through the different menu options we quickly noticed an issue with the "news" link that leads to a non-existent page. We also noticed the sidebar would behave very strangely; elements in the sidebar would move around depending on which page the user was viewing, and some links would appear on one page but disappear from another. For example, there is no "links" option from the calendar page. Lastly, another issue we had with the site was the empty "tests" page, there are obvious uses for a tests page but not if it is empty.

One of the requirements for the assignment was to have a navbar that stuck to the top of the page when a user scrolled down. This meant we had to ditch the angle design of the old site, but in doing so, and by making our navbar stretch to both extremities of the page, we fixed the whitespace issue of the old site. The news and tests pages sounded like good ideas to us but without any content to add to either of them, we decided it was best to remove those options from the navbar entirely, at least for the time being. Sorting out the inconsistent navbar was easily fixed by simply ensuring the html code was consistent across pages, although it is understandable how one might forget to make the changes in all their files if they decide to change one file. Keeping all the CSS for the navbar in a separate navbar\_footer.css file meant we did not have to make the same style changes several times. Something else we changed, that was by no means an issue in the original site but worth mentioning, was to use the official University of Toronto colors from here <https://trademarks.utoronto.ca/colors-fonts/>.

We also faced numerous new challenges. Getting the footer to stay at the bottom of the page without making it sticky was surprisingly difficult, in the end we managed with some help from Stackoverflow. Making the tutorial and lecture tables without <table> elements was also tricky, but after taking some inspiration from [this blog post](#) the task became fairly straightforward. As we alluded to earlier, making changes to code that was duplicated across several pages was not necessarily challenging but it was tedious and something we had to remind ourselves to do. We made things easier for ourselves by organizing repetitive CSS in our navbar\_footer.css and main.css files but did not find a solution for html elements. Making our website work well on mobile phones was something we wanted to address but unfortunately we were restricted by time. Finally, there were seemingly constant issues with positioning or sizing elements but these were usually resolved through trial and error.

Another challenge we encountered was the issue of dividing tasks efficiently and working on the project simultaneously. Whereas before we were emailing each other the files, we found this to be a tedious process which caused a lot of problems with different versions. Hence, we created a private repository on GitHub, and used version control to keep track of our changes and maintain a faster and more efficient way of updating our project. This way we did not have any problems and could make updates and change elements in the code as we deemed fit. We also worked in an agile environment, where we set up tasks for problems and issues we faced which also helped with dividing tasks among us and maintaining a positive workflow.