**CSCB20 Assignment 2 Report**

In this assignment, we were asked to redesign and recreate the website for this course, using HTML and CSS. While investigating the potential solutions for this project, we noticed a few key issues that were reappearing in already existing course websites that we linked in our assignment handout:

* Static design – there was no response to user’s actions (such as pointer movement) on the website, elements had no animations associated with them and the links were not responsive to users scrolling over them
* Outdated styling – most of the websites were very plain and had minimal or no CSS styling applied to them making them look less visually appealing to the user
* Unresponsiveness to different screen sizes – most of the elements on the websites were static in size and were therefore difficult to display on the screen sizes they were not originally designed for (such as mobile phones), as they would get cut off
* Poor readability – some of the pages contained segments that were packed in content while their other segments were relatively empty compared to these, which made the websites look less legible and unorganized
* Single page for all contents of the website – all of the subsections were contained in one page, which made the website feel cluttered and unintuitive.

When we were designing our page, we wanted to make sure to address as many of these issues as we could to improve the user experience of the students of this course. We have created our webpage so that the elements are sized relative to the screen size, rather than having a fixed size, making them easily viewable on variety of screen sizes, ranging from mobile to desktop. We have also split our website into multiple pages, to make it easier for the user to focus only on the content that they want to see, having each section of the page separated by spacing and subtitles, in order to improve readability. All of the pages are easily accessible from the page header, which is always attached to the top of the screen. On horizontal screens, the header contains direct links to the pages of the website, while on vertical screens, the header contains a menu button instead, which when clicked, opens up a drop-down menu containing all of the pages. We have also made an effort to make the website visually appealing to the user – a unified neutral colour scheme, combined with rounded design and ‘computer directory’-like titles make the webpage more appealing to the students of this course and thus more engaging. In addition to this, we have implemented fast and simple transitions and animations to the elements, such as links and buttons, making them responsive to hovers and clicks in order to make the website feel more responsive and reactive.

Although the website design and creation process generally went well, there were several challenges that we faced and resolved as a team. Firstly, we felt that some of the assignment requirements did not account for all the information present on the original CSCB20 website whose information we mimicked. Thus, we extended the required “Labs” page into the “Lectures & Tutorials” page so that students have more organized and relevant information. Likewise, we added a google calendar to the “Announcements” page to present important course dates in a more readable format. Furthermore, we were challenged by the implementations of animations into our website. Since we decided to use the CSS “transform” property, this caused some issues with the layering of elements in certain browsers. In particular, the TA and professor cards in the “Course Team” section would go over the navbar when scrolled over, even though the correct z-value properties were set for the relevant elements. To fix this bug, we did some research on how the transform property works and found that adding static transforms to the parent elements of the cards helped preserve the overall z-values. Another challenge we faced was working through the restriction against using the <table> tag in html. To resolve this, we researched potential solutions and found out how we could use built-in CSS properties on normal <div> elements to develop tables. Finally, the greatest challenge we faced was learning how to have multiple individuals collaborate on one coding project. Unlike the previous assignment, it was difficult to split the assignment into separate questions that each person could do and that we could combine for the final submission. Website work is a lot more complicated and requires cohesion between all elements. Thus, we made sure to create a detailed plan in a word doc that outlines what needs to be done and how exactly the work would be split. Before beginning, we also collaborated on an overall aesthetic and website structure before we began working on separate parts. Furthermore, to ensure streamlined work, we decided to use GitHub and GitHub Desktop for version control and simultaneous collaboration on one project. Overall, our commitment to planning, communicating, and using specialized tools helped us succeed as a team.