# CSC491/2600

University of Toronto's Capstone Design Course through the Department of Computer Science Innovation Lab (DCSIL).

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## Course Overview

Students will write a software application that implements the business ideas developed in CSC454/2526 (Business of Software). This course will expose students to the core technologies, ideas, and processes in developing a startup.

Students will be given a theme, in the corequisite course (CSC454), in which to develop a startup. Students are expected to:

- Define their own scope of problem within the theme
- Develop a cohesive plan
- Produce a working MVP (minimum viable product)
- Present their work in various mediums, including written, orally, visually, and through the internet.

Class time will be a mixture of project-focused workshops, lectures, and discussions. The class will be small and very interactive. Students may hear from guest lecturers from the field.

### Requirements to take this course

There is a co-requisite to CSC491/2600, students must also be enrolled in CSC454/2527 or have taken CSC454/2527 before to take this course.

There is also an application process on the DCSIL website.

### Required Materials/Software

There aren't any *required* materials persay, but it is highly recommended to bring a laptop to class with a fully functioning developer environment for your project. While not all classes will be workshops, it is recommended to bring your laptop during each class for other uses such as research.

You will also need a GitHub account.

It is **required** to download, install, and set up Zoom as this will be used for all communications throughout the term.

## Lecturer

Hello! My name is Julian Nadeau. You can reach me at julian.nadeau[at]utoronto.ca.

I am a Senior Software Developer at GitHub during the day. I've also worked in the startup space quite a lot having experienced explosive growth in various roles at Shopify from 2013 through 2019, including their IPO.
I've run a not-for-profit startup as well, called Code For Kids, that helped teach kids how to code.

You can view my personal website at https://jnadeau.ca and my LinkedIn Profile here.

### Office Hours

Office hours are by appointment. Please email me at julian.nadeau[at]utoronto.ca, though messaging me on DCSIL's Slack group is more likely to get a response.

While the course is online due to Covid-19, I am willing to meet up for a socially distanced coffee or park visit in person in the downtown core of Toronto to discuss any issues in person if you would strongly prefer that. Please wear a mask (except when drinking your coffee/tea/water), I will not meet with you if you are not wearing your mask.

## Time and Location

Class is on Thursdays from 6-9 EST on Zoom. If you are not in a time zone that aligns with EST, please let me know early!

## I don't like something about this course

There's always room for improvement and I'm happy to take any feedback.

Please submit an issue on this repo, or preferably make a pull request changing or adding something you don't like.

That said, remember that your changes or concerns aren't guaranteed to be addressed how you want. I (the instructor) have the final say.

If you prefer to speak privately, please email me or message me on Slack.

## Class Schedule

> ⚠ **The schedule, other than assignment due dates, will be heavily modified to accommodate a remote, online semester. This page is current inaccurate**

| # | Date | Location | Description |
|---|---|---|---|
| 1 | Thursday, September 10 2020 | Online (Zoom) | First day of class, Introduction, AI Workshop with the TA |
| 2 | Thursday, September 17 2020 | Online (Zoom) | Diversity & Ethics |
| 3 | Thursday, September 24 2020 | Online (Zoom) | (A1 Due) Story Telling |

| # | Date | Location | Description |
|---|---|---|---|
| 4 | Thursday, October 1 2020 | Online (Zoom) | (A2 Due) Technology, Tooling, and Best Practices |
| 5 | Thursday, October 8 2020 | Online (Zoom) | (A3 Due) Work in Class |
| 6 | Thursday, October 15 2020 | Online (Zoom) | SRE, Prod Eng, and Operations |
| 7 | Thursday, October 22 2020 | Online (Zoom) | (A4 Due) Product & Data Analysis (TBD?) |
| 8 | Thursday, October 29 2020 | Online (Zoom) | (A5 Due) Work in Class |
| 9 | Thursday, November 5 2020 | Online (Zoom) | Security Talk & Workshop from Guest Speaker |
| N/A | Thursday, November 12 2020 | Online (Zoom) | NO CLASS - Reading Week |
| 10 | Thursday, November 19 2020 | Online (Zoom) | UX & UI (TBD?), Work in Class |
| 11 | Thursday, November 26 2020 | Online (Zoom) | Lecture TBD / Work in Class |
| 12 | Thursday, December 3 2020 | Online (Zoom) | A6 Due - Software Due - Informal Demos of your Software |
| N/A | Friday, December 4 2020 | N/A | Bonus Assignment Due |

**Notes**

- *Lectures subject to change.*
- denotes an assignment or demo is due
- Zoom link will be provided in the DCSIL app

### Summary

- 7 Lectures (21 hours)
- 3 Work in Class periods (9 hours)
- 1 Intro with Workshop (3 hours)
- 1 Presentation (3 hours)
- **Total**: 36 hours

## Assignments

Please see the assignments section.

## Late Policy

Students are expected to work diligently to pass their assignments in on time. This course is intended to partially model a startup, however it is still a university course. Assignments also take time to mark and lecturers/TAs schedule their time according to the course calendar. We ask that you be respectful of their time by not passing assignments in late.

Assignments will be accepted up to 1 week past the due date at -5% per day.

| Days Late | Percent Lost |
|---|---|
| 1 | -5% |
| 2 | -10% |
| 3 | -15% |
| 4 | -20% |
| 5 | -25% |
| 6 | -30% |
| 7 | -35% |
| 8+ | -100% |

Accomodations can be made by talking to the instructor. They are not guaranteed, however, but we do like to model a startup :)

### Compounding assignments

These assignments are, generally, made to compound one another. While assignments may be late and you may lose 100% of the marks, you must still complete them to work on the following assignments.

## Class Attendance

While class attendance is mandatory, we will not be taking attendance.
This is a senior computer science class with a highly competitive application process.
As such, you are trusted to make the best choice for yourself and your team.

However, as stated in the team grade policy, team members all receive the same grade unless
there is an obvious discrepency in the output of work, then as per policy we will be forced to give you a different grade.
Attendance may be taken into account.

You must also remember that you are in a team. Your team members are counting on you to do your part. Don't let them down.

## I am sick or injured, have an emergency, or family issue

Life happens. I am not going to penalize you for things that are outside of your control.
Instead, I ask that you be open and communicate your needs with me whether that is
lenience on an assignment deadline or that you may not attend class.

If you are sick and would like to participate in class still, then we can set up a Zoom call for your to join in remotely.
*Please do not* come to class if you are sick. I *will not* penalize you for not attending class due to an illness. Be open and communicate your needs so we can accommodate.

## All my classes are online and I do not live in a timezone that can align with EST

Please talk to the instructor by email or Slack.

## How to ask for help

- A ping on Slack is a decent option
- An email leaves a better paper trail for both of us
- In some cases, meeting in person may be a good option (we'll discuss this beforehand)

While I do not need to know the exact details of what happened, just let me know what the issue is and how long you need to recover/return to normal work.

However, for extended absences or issues that persist past the end of the semester we may need to ask the University's administration for input.
We can work through that one together.

# Communication

There are, just as you will find in a startup, various methods of communication. Please hold group online discussions on Quercus or another tool of your choosing. You will receive invites during the first week of the course. Likewise, Zoom will be used at points during this course. Please ensure you have it installed and signed into an account.

Communication, as we will discuss in the course, is vital to the success of any business. As your startup gains traction and becomes successful, you will find that communication methods and culture become a bottleneck within your company. As such, we will ensure students are exposed to different means of communication and include the following table to help you understand the various mediums.

| Medium | When to use |
|---|---|
| DCSIL Team App | Creating teams. Assignment feedback, surveys, etc for CSC491/2600 |
| Slack | General discussions and questions. The instructor for CSC491/2600 (Julian Nadeau) also prefers this communication method. |
| Email | Private matters. The instructor for CSC454/2527 (Mario Grech) also prefers this communication method. |
| Quercus | CSC454/4527 uses Quercus |
| In Person | Hallway conversations. If you decide anything here, write it down somewhere else on your Team's GitHub Repo |
| Video Chat via Zoom | All classes will happen over Zoom |
| Issues and tracking boards | Team: Use this heavily as a decision record on most topics. Making use of GitHub Issues shows participation from all users (including non-technical) and will be a part of your grade in CSC454/2527 CSC491/2600: When you have a problem that needs to be fixed and are comfortable talking about it in the open |
| GitHub Releases | For your team repository, use this as a method to record assignment submission for CSC491/2600 |
| Internal Wikis | You can keep team docs in your team repo on GitHub. I ask that you avoid using the wiki feature as it makes grading more difficult |

## Support and Accomodations

Students with diverse learning styles and needs are welcome in this course. Students who have a disability or health consideration that may require accommodations are both encouraged and welcome to

approach the Course Instructors as soon as possible. Should accommodations be necessary, by University of Toronto policy students are required to contact the Accessibility Services Office.

## Class Policies

These are the policies for this course.

- Attendance
- Communications
- Late Policy
- Midterms & Exams (hint: there are none)
- Plagiarism
- Support & Accomodation
- Team Grades

## Midterms & Exams

There are none. This is a project-based course.

## Plagiarism

The University of Toronto treats plagiarism as a violation of the Code of Behavior on Academic Matters. Plagiarism is a serious form of cheating in which a student makes use of someone else's ideas or words without giving appropriate attribution. In your academic work, plagiarism usually occurs in one of three ways:

- You cut and paste a piece of someone else's text or code or figure but do not clearly show what the source is for that material.
- You hand in work done by others (e.g. teammates) without putting their names on the work.
- You re-phrase someone else's idea into your own words, but do not give credit to the source of the idea.

The University takes cheating very seriously. Penalties can include zero on the assignment, zero in the course, annotations on your transcript (which would be seen by a potential graduate school or employer), or in extreme cases expulsion from the University. If you are concerned about your use of sources, discuss your concerns with your Course Instructor before submitting a document for assessment.

## Team Grades

When working in teams, students are expected to divide workload equitably. The nature of the division is up to the team members, and does not require that all members work the same hours or produce identical volumes of work. By default all team members receive an identical grade on team assignments.

During your first assignment you will create a "team expectations" document that all team members must agree on. This will help us set expectations for workload and expectations of all members.

Students should report any difficulties in their teams to a member of the Teaching Team as early as possible so that the difficulties can be addressed in a positive way.

Students should also maintain as complete a record of team interactions as possible.

Based on solicited, confidential feedback, or at the instructors discretion based on participation in the course - the Course Instructor may adjust the grade distribution within a team.