



Canadian Federation of Engineering Students Workload Study Info Package

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CFES Introduction

The Canadian Federation of Engineering Students (CFES) is a national, bilingual organization that represents approximately 81,000 engineering students across Canada. The CFES offers services ranging from leadership development conferences, to technical skill competitions, along with other outreach efforts. The CFES aims to provide opportunities in support of an all-encompassing education for engineering students. This study is part of our advocacy effort to the Canadian Engineering Accreditation Board (CEAB), the body which certifies the engineering programs across the country.

Study Purpose

The CFES is trying to accurately characterize the schedules and demands placed on students in order to combat excessive workload, and its negative impact on student mental health. An additional benefit would be the ability to justify the inclusion of extracurriculars as credit hours.

Recently there have been concerns about student mental health from the CFES and the engineering deans. The result of the 2017 CFES National Student Survey showed that excessive workload was the single largest contributor to poor student mental health in engineering, which was decidedly worse than the general student population. One possible solution to this is to consider student learning time as a metric for evaluating engineering education. But, how does it work now?

Within the accreditation system there are many assumptions about how students spend their time and in what proportion. These assumptions are distilled into what is called an Academic Unit, which is the elementary building block of an accredited engineering education. Academic Units are distributed as follows:

AU category	Minimum AU's required
Mathematics	195
Natural sciences	195
Mathematics and natural sciences	420
Engineering science	225
Engineering design	225
Engineering science and engineering design	900
Complementary Studies	225
Sub-total	1,545
Total AU's	1,950

The CFES, along with the National Council of Deans in Engineering and Applied Science, believe that students would be better served with more program flexibility, less administrative overhead, and reduced unnecessary workload. This is possible through learning time as a primary program metric, but making and justifying this transition is difficult without first knowing how students are currently spending their time, and which tasks have the largest impact. Using the learning time perspective also allows for easier substitution of extracurriculars and co-op experience for courses.



Method

Participants will submit their course outlines and use a time tracking app which can export insights. We recommend **Toggl**, which is free to use on your smartphone or desktop and has both PDF and CSV exports. The workflow would be as follows:

1. Sign up for Toggl <https://toggl.com/login/>
2. Create a project for each class and extracurricular (design teams, sports teams, gym time, music bingo)
3. To log time, create a task and add it to a project
 - a. tag a task with your current mood from 1-10 to track your mental health over the semester
 - b. 10 should be in good spirits and a feeling of satisfaction and purpose
 - c. 1 constitutes an emergency
4. Submit a zip file **each month** to vpa@cfes.ca containing a csv and pdf output from Toggl
 - a. filename: firstname_lastname_school_month.zip

Some tips for success:

- Logging 15 minutes of email writing 4x a day can be exhausting, consolidate it into a larger task at the end of the day.
- Get onto Toggl on **all your devices!** Desktop and chrome extensions can be especially useful.
- If you forget to start your timer, check out the timeline feature which logs your desktop activity
 - Tasks can always be put in using manual mode (detailed below)
- Set a daily silent notification to make sure you don't miss a day of data
- Toggl has a lot of features you won't need for this study. Use projects and tasks.

Toggl Tutorial

The following section will walk you through how to

- create projects
- create tasks
 - add tasks to projects
 - add tags to tasks to represent mood
- export the detailed report as CSV

You can quickly create a task

What are you working on?

+ Create a project



0:00:00



and stop it when you're done

ECE380 prelab =(

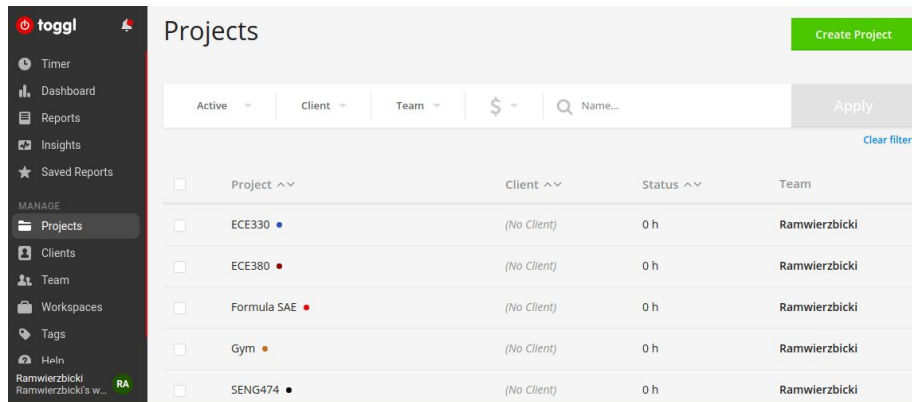
+ Create a project



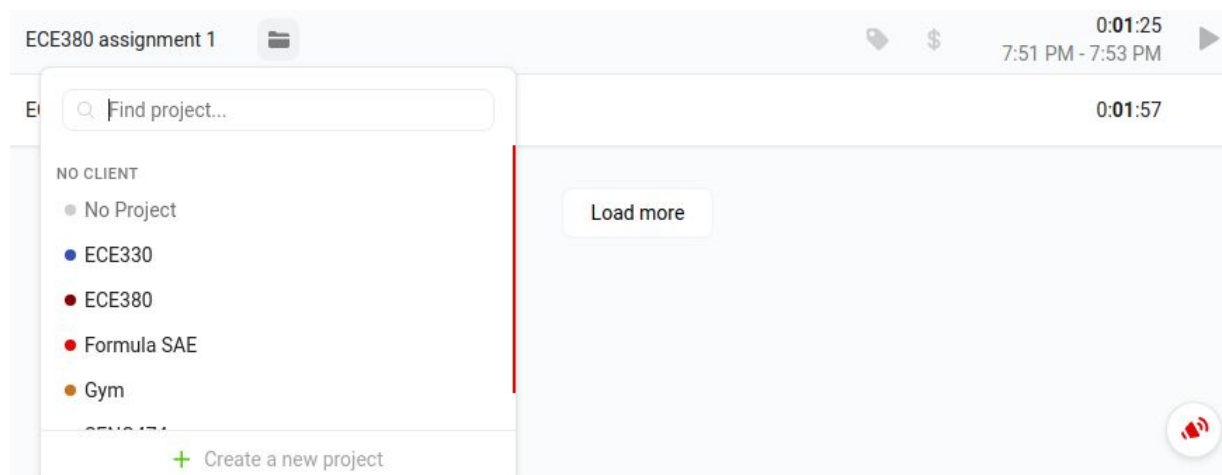
0:00:08



You can create a project for the each course/activity and it will show up like this



Once a task is started you can easily add it to a project folder.



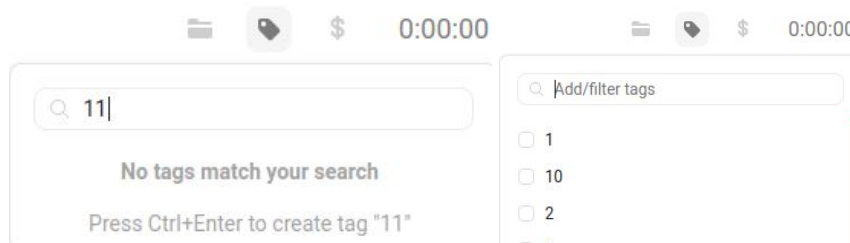
If you don't start logging at the beginning of your task, it's easy to add it at the end!



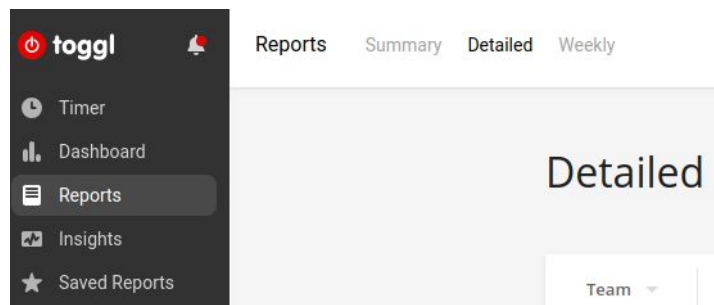
Click the 3 bars on the far right to go from timer mode to manual mode, and enter the task! This is a great way to catch up on your logs for the day before you forget everything you did.



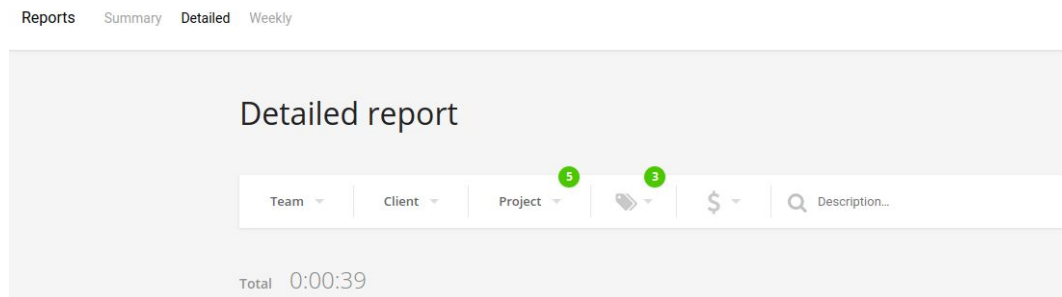
To track your mood over the semester, click the tag button and enter how you're feeling from 1-10. You will have to press ctrl+enter to create a new tag after entering it, but existing tags will appear automatically.



To export data, click on reports on the left hand side, and then click detailed



Click the *project* dropdown menu and then *select all*.



Exporting your work log can be done by clicking the *project* drop down menu and then *select all* and then the PDF and CSV downloads. In the top right you can select the time period as week, month, or a custom interval.



Detailed report This Month

Team Client Project 5 3 \$ Description... Apply

Total 0:00:39 Clear filters

Export Download as PDF Download as CSV Download as XLS 5 h 4 h 3 h

One day's tasks could include:

- Lectures attended
- Textbook readings
- Team/project meetings
- Professor office hours attended
- Labs attended
- Assignments
- Tutor/tutorial sessions

Summary

There is a disconnect between the bodies in charge of structuring the engineering education and the student experience. This study is aiming to close that gap and advocate for policy which can improve the engineering education while also removing stressors. To do this, the CFES needs good data.

Use Toggl to log your time and the export feature to send csvs and pdfs to vpa@cfes.ca

The zip filename format should follow: `firstname_lastname_school_month.zip`

