UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Report No. 3649

MEMORANDUM

To: Executive Committee of Faculty Council (April 7, 2020)
Faculty Council (April 29, 2020)

From: Professor Evan Bentz
Chair, Undergraduate Curriculum Committee (UCC)

Date: March 27, 2020

Re: **Proposed Fall Study Break**

REPORT CLASSIFICATION

This is a major policy matter that will be considered by the Executive Committee for endorsing and forwarding to Faculty Council for vote as a regular motion (requiring a simple majority of members present and voting to carry).

SUMMARY

With the goal of improving student wellness at the Faculty of Applied Science & Engineering, the Undergraduate Curriculum Committee (UCC) explored the possibility of introducing a break in the fall term, starting in the 2020-2021 academic year. Based on these discussions and the results of four surveys distributed to stakeholder groups (students, faculty, graduate students/teaching assistants and academic advisors), this report recommends introducing a five-day break in November. Benefits, considerations and constraints of a fall break are described in the attached report.

CONSULTATION

These changes have been reviewed and approved by the UCC, which is comprised of representatives from each undergraduate program; the Vice-Dean, Undergraduate; the Vice-Dean, First Year; the Associate Dean, Cross-Disciplinary Programs; the Director, First Year Curriculum; the Registrar's Office; undergraduate students; the Faculty's Teaching and Learning Specialist; the Faculty's Scheduling Officer; and representatives from IBBME, UTIAS, the Engineering Communication Program, and the Engineering and Computer Science Library. The UCC meets regularly and reviews changes to the curriculum. The impact of these changes on students in the relevant programs has been considered.

RECOMMENDATION FOR COUNCIL

THAT the proposed fall study break, as described in Report 3649, be approved effective September 2020.

Faculty of Applied Science & Engineering

Undergraduate Curriculum Committee

Proposal for Fall Study Break

March 27, 2020

Summary

For many years the University of Toronto has had a winter reading week where there are no classes and no assessments. This document discusses the idea of FASE introducing a fall "study break". The students, faculty and advisors have concluded that such a break would positively impact mental wellness. It is also possible to have one within the existing constraints of the CEAB, though the longer it is the more difficult it will be to accommodate without changing our AU counting system. This document proposes two different potential fall study break plans. The Undergraduate Curriculum Committee recommends unanimously that a full week study break be implemented in early November of 2020 and all subsequent years.

Process

This process was driven by the goal of having a pause in the fall term primarily as an attempt to improve student wellness and decrease student stress. It is also hoped that this can result in increased knowledge uptake by the students despite there being fewer contact hours. Associate Chairs were asked for the perspective of their respective programs and participated in extensive discussion, a comparison was made to other engineering schools, the literature on the topic was surveyed and a large survey was conducted with over 1,000 responses. This survey, see below, was sent out to current undergraduate students, graduate students (i.e., the TAs), professors and staff advisors. Finally, consideration was given to constraints from the Canadian Engineering Accreditation Board (CEAB) to ensure it will be possible to maintain accreditation status. The resulting proposals represent a balance of these considerations.

Survey Results

All surveys had identical questions asking respondents to rank in order of most preferred to least preferred a series of options described as:

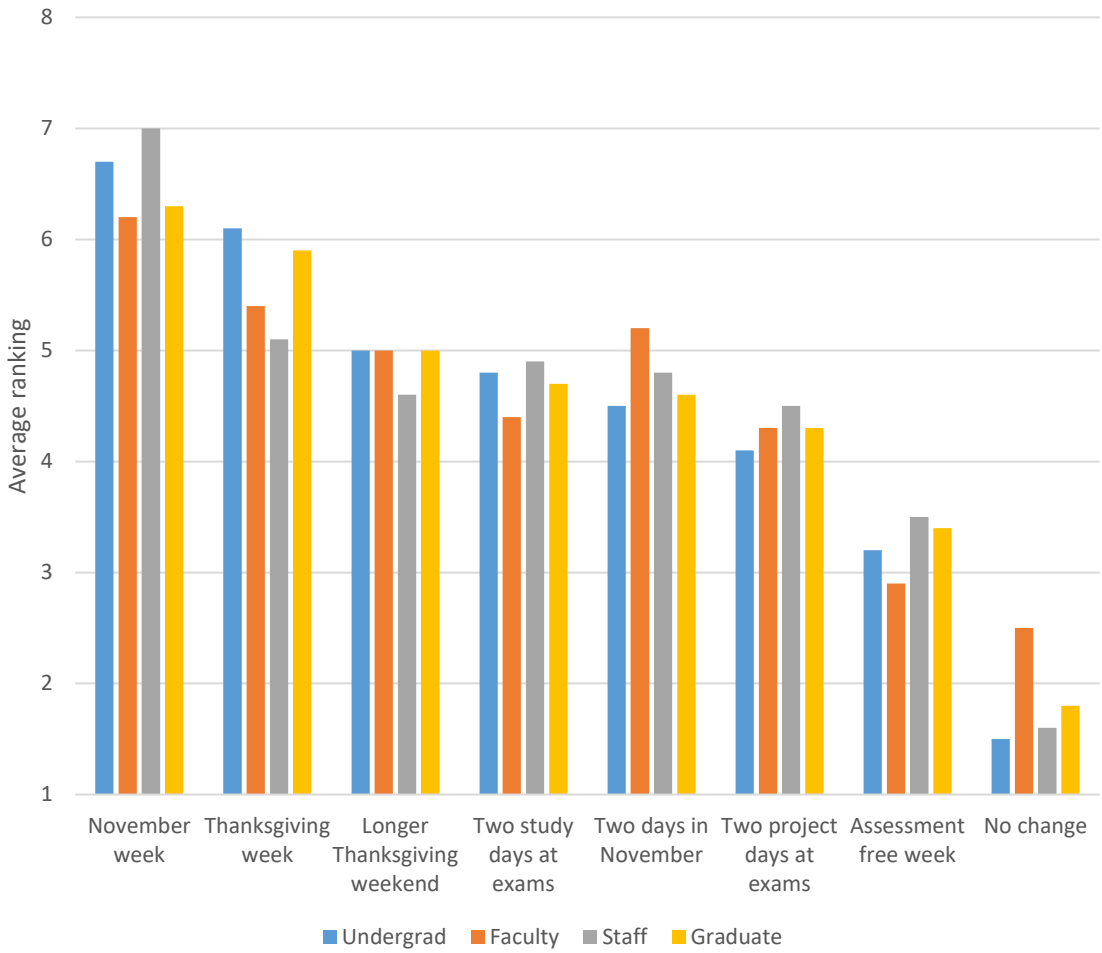
- Full week break in early November
- Full week break during the week of Thanksgiving
- Two additional days break (five days total) during the week of Thanksgiving
- Two additional study days just prior to final exam
- Two day additional break near beginning of November
- Two day break dedicated towards project completion at end of November
- A week with regular classes but no assessment (e.g., no assignments due or midterms)
- No changes to the status quo

The respondents were asked to rank these items both in terms of the impact on student learning as well as their expected impact on student well-being. The order of the items was not a constant but changed randomly for each responder as well as between the two sets of ranking requested. Note that the vast majority of surveys were completed prior to March 13th 2020 when the University changed its curriculum delivery methods for the term due to threat from the novel coronavirus.

The table, below, shows the results of the surveys summarized for all participants. Across the top are the four groups of participants with the number of responses and percentage of the body they represent. The eight options are ordered based on the average popularity from the student survey. The numbers represent the average ranking given to each option in two senses: average between the student learning question and the student well-being portions of the survey (which were similar) and averaged for all respondents in the group. This means that if one option was ranked worst by all students, it would receive a value of 1.0 while if it was ranked as the best by all it would receive a value of 8.0. Scores higher than 6 have been highlighted in green as the most popular while those with less than 4.0 are in yellow indicating they were not popular.

	Average Rank			
	Undergrad Students n = 950 ~ 20%	Faculty n = 70 ~23%	Staff Advisors n = 13 ~76%	Graduate Students n = 141 ~7%
Full week break in early November	6.7	6.2	7.0	6.3
Full week break during the week of thanksgiving	6.1	5.4	5.1	5.9
Two additional days break (five days total) during the week of Thanksgiving	5.0	5.0	4.6	5.0
Two additional study days just prior to final exam	4.8	4.4	4.9	4.7
Two day additional break near beginning of November	4.5	5.2	4.8	4.6
Two day break dedicated towards project completion at end of November	4.1	4.3	4.5	4.3
A week with regular classes but no assessment (e.g. no assignments due or midterms)	3.2	2.9	3.5	3.4
No changes to the status quo	1.5	2.5	1.6	1.8

The data in this table are plotted in the figure below. The blue lines in the figure shows the results for students, the orange for faculty, grey for staff and yellow for graduate students to represent the TAs. From the figure we can see similar rankings between the different surveyed groups. The tone and focus of the comments showed significant differences however. Overall, the option of having a full week break was more popular than a shorter period and the no change in lecture hours, the last two options, were least popular. Note the status quo option was very unpopular.



Overall these data show something which may not be surprising: students would prefer a longer study break than a shorter one. This is consistent with the idea that many students are overwhelmed with work and believe that the status quo is not acceptable.

The comments provided by the participants to the survey were voluminous and occupied 38 pages for the undergraduate student survey alone with a small font. A small and non-scientific, but loosely representative sample of comments is provided below. These comments cover most of the key issues that were brought up in the different fora that the committee consulted. Comments that duplicate previously commented on items are generally not repeated. It is important to note that the vast majority of comments were in strong support of a study break of some sort.

Sample Undergraduate Student Comments

"A two-day break gives a good compromise between providing days to relax, and not packing too much content into classes. A break in November is much more useful than a break around Thanksgiving."

"A reading week in the fall at the same time as other schools would be nice."

"A week long break in early November is extremely beneficial to rest and also catch up in other work. Shorter breaks or breaks at other times will only be used for studying and will not be much of a relief."

"Every day felt like a race which is why I believe a week of a break is so beneficial to help ease the mind and also take time to truly absorb what's been taught."

"I live in Saskatchewan and the first semester was really hard to get through because I couldn't go home."

"It is very demoralizing when Arts and Science students have reading week in the fall, and engineers don't. I get very sad and jealous during this time."

"The current lack of a break in the fall term, particularly around midterms in late October/early-mid November, causes significant problems for me due to my disability."

"The extra time off is valuable, but the biggest thing is timing. Early November is when things feel very crushing, especially given that midterms have started and there are truly still more to come."

"Time becomes more valuable the closer to exams you are."

Not all agreed though:

"Due to high workload as an Engineering student, I don't think having a reading week is advisable."

"Also I am concerned that the assignment/midterm/exam content is going to be more difficult with the fall break, since it may seem like we have extra time to study for some people."

"We don't need any more breaks. We pay so much tuition to learn, not to be on break!!"

Sample Professor Comments

"A full week midterm break is a much better option as I have seen students usually travel during the reading week. Two days break will not have much effect on releasing the stress."

"Adding a break in the fall semester will decrease the number of lecture hours, but the instructors will not reduce the content covered in each course, unless they are specifically mandated to do so."

"As Fall semesters are already shorter than premiere US schools, it's tough to fit a 7 day break."

"I am against two days here and there as it disproportionately disadvantages those whose classes run once a week."

"My ratings devolved into my personal preferences. It's too convoluted to give a general response imagining what my vast range of students might think."

"It's not clear that many profs have much insight into the situations experienced by the students across all courses."

"To say that students need a break is, in my view, a distortion of the real problem. The real problem in Engineering is the absurd quantity of deliverables, labs, quizzes, and exams."

"We are far too beholden to the accreditation process, and should be willing to push back harder."

Sample Advisor Comments

“A break too early in the term would not be helpful as students are not at their peak in terms of stress or workload. A break in the middle of term would allow students to genuinely feel a relief of stress.”

“A key component to this decision I think is the impact of not having to commute to campus.”

“I think the break needs to align with the Faculty of Arts & Science fall break; for logistical reasons.”

“My students felt especially burned out in early November, so erring on the side of a November break - whether a full week or a few days - would benefit them greatly.”

Sample Graduate Student Comments

“A full extended break is the only remedy to stress when studying. Days off help, but the extended time is where it counts.”

“Creating specific times for extra studying or project work will make procrastination more tempting.”

“I am a grad student and I am diagnosed with major depression. […] Providing full weeks off does not help in the long term. It is effectively an avoidance strategy which makes the symptoms worse once the stressor is back in place.”

“In my undergrad I experienced both a 2 day break at the beginning of November, no fall break, and a full week (at Thanksgiving) break. I cannot stress enough how a break is beneficial to well-being, but for learning I think early November is better than Thanksgiving.”

“It is important, however, that the week of break is not followed by 5 midterms, which often happens during other break periods.”

“Thank you for finally listening to students and taking their mental health seriously.”

The full list of comments is available in the appendices.

Summary of Fall Break Experiences and Literature

Fall Term Length – Canadian Engineering Programs

The findings below summarize an informal consultation that took place in fall 2019 amongst a variety of engineering undergraduate programs across Canada. In total, 15 programs were reviewed. Online calendars were also reviewed to determine specific term dates. If not stated differently, these dates refer to the fall 2019 term.

Term Length: This varied from 12 weeks, or 60 instructional days (7 programs), to 13 weeks (65 days) (3 programs). One program had 59 teaching days.

Fall Break: 10 of the 15 programs had some form of a fall break. Four combined this with Thanksgiving, three have full week breaks in November, two have one or two day breaks, and one combines this with the closure for Remembrance Day.

Summary of Fall Break Experiences in Ontario Engineering Programs

Different forms of fall study breaks have existed in Canadian and Ontario engineering programs since 2012 (see chart in Appendix[1,3]). Over these years, there have been a number of articles and papers written that summarize the overall impact and experience of such fall study breaks (see details below).

In general, fall breaks are very well received by students and they feel that it reduces their stress levels during the term. However, it appears that if the break is too early in the term or if students do not use some of that time for academic work, students' perceived level of stress can be higher after the break. As well, if the overall academic workload is not adequately reduced, or if heavy demands remain before or after the break, then the overall experience can negatively impact students' stress levels.

Recommendations have been made to improve the effectiveness of a fall break, including: (a) schedule this to take place closer to the mid-point of the term (e.g., early November), (b) institute a "test ban" just before and after the break and work to coordinate the assessment schedule for the term when possible, (c) support both faculty and students to make best use of the break time, and (d) evaluate the impacts of the break on both faculty and students.

Some specific key findings and results are:

- As of Fall 2017, 52 of 70 Canadian universities have implemented a fall break[2]
- Common constraints on a fall break are the requirement for a minimum of 60 instructional days and inability to start the term earlier due to lack of housing availability in August.[3]

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[1] University of Guelph White Paper – Fall Study Break Expansion 2017: https://uoguelph.civicweb.net/document/141029

[2] Khan, Ayesha, Heather Poole, and Elliott A. Beaton. "Measuring the Impact of a Weeklong Fall Break on Stress Physiology in First Year Engineering Students." *Canadian Journal for the Scholarship of Teaching and Learning* 9.2 (2018): n2.

[3] Elnaggar, Ayman, and Megan Lochhead. "INTRODUCING A FALL "WELLBEING" WEEK AT UBCO." *Proceedings of the Canadian Engineering Education Association (CEEA)* (2019). https://ojs.library.queensu.ca/index.php/PCEEA/article/view/13826

- A large-scale 2013 study of 30 Canadian post-secondary institutions by the American College Health Association found that 89% of student respondents felt overwhelmed, 87% felt exhausted, 57% felt overwhelming anxiety, and 58% felt rated their overall level of stress as "more than average" or "tremendous".[4]
- Research at Brock University found that 83% of students reported that a fall break was useful to reduce their school-related stress levels, yet it was also found that 40% reported experiencing higher workload before the break.[5]
- A large survey at an institution that implemented a fall break during the week of Thanksgiving found that the implementation of a fall break resulted in[6,7]:
    - Upon reflecting on the fall term in January, 80% of students reporting that the fall break "was a good thing" for them, with 69% saying it reduced their stress.
    - Yet using standardized survey instruments, students reported higher perceived stress levels after the break.
    - Post-break stressors were related more to academics (e.g., having lots of deadlines to meet), whereas pre-break stressors were more general in nature (e.g., worry about the future).

  To increase the efficacy of the fall break they recommended:
    - Postpone the break to later in the term, to not negatively impact student's academic momentum and to enable a potentially greater impact on stress reduction,
    - Disperse assessments, by implementing a test ban just before and after the break and coordinating the assessment schedule if possible,
    - Evaluate effectiveness of the fall break
- An assessment of how 177 students at the University of Windsor spent their time and felt before during and after a fall break during Thanksgiving found:[8]
    - Students perceived stress was significantly predicted by how they spent their time during the break
        - Not surprisingly, students who spent their break time on academic work, reported lower levels of stress and academic workload after the break
        - Whereas those that spent more time recreating reported higher levels of stress post-break
- Impacts of the creation of a two-day break during the week of Thanksgiving at the University of Waterloo on student's performance in a first-year programming course have also been reported on:[9]

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[4] American College Health Association, 2013. Accessed March 25, 2020. https://www.acha.org/documents/ncha/ACHA-NCHA-II_CANADIAN_ReferenceGroup_ExecutiveSummary_Spring2013.pdf

[5] Pilato, K. "Exploring the impact of a fall break on student mental health outcomes: Year 1 report." (2014). Accessed March 25, 2020 from https://brocku.ca/webfm/Mental_Health_and_Fall_Break_Report_Year_1-good,_final%5b2%5d.pdf

[6] Poole, Heather, Ayesha Khan, and Michael Agnew. "One week, many ripples: Measuring the impacts of the fall reading week on student stress." *Collected Essays on Learning and Teaching* 10 (2017): 163-172. https://celt.uwindsor.ca/index.php/CELT/article/view/4757/4210

[7] Agnew, Michael, Heather Poole, and Ayesha Khan. "Fall break fallout: Exploring student perceptions of the impact of an autumn break on stress." *Student Success* 10.3 (2019): 45.

[8] Cramer, Ken, and Rebecca Pschibul. "Student time usage during fall reading week." *Collected Essays on Learning and Teaching* 10 (2017): 155-162. https://celt.uwindsor.ca/index.php/CELT/article/view/4754

[9] Hulls, Carol, et al. "Effects of a Fall Reading Break on First Year Students' Course Performance in Programming." *Proceedings of the Canadian Engineering Education Association (CEEA)* (2018). https://ojs.library.queensu.ca/index.php/PCEEA/article/view/13006

- They found that 29% of first-year mechatronics students (57 students out of 194 respondents) regretted how they used their two-day break.
- A linear regression model, when controlling for identity, prior experience, hours of study, and programming ability at the end of the term, predicted that students who regretted how they used their break earned 6% less on the course final grade.
- Through student focus groups, it was noted that students agreed there should not be any assessments due immediately following the break and that the timing is important as they noted the mid-term placement of the winter break was less stressful.

Accreditation Requirements

The Faculty of Applied Science & Engineering at the University of Toronto is committed to delivering accredited engineering programs and this proposal will not change that commitment. In order to include a fall study break, however, there will be a reduction in number of course hours (Accreditation Units or AUs) that the students receive in the fall. It is for this reason that it is recommended that the winter term be kept the current length (64 teaching days) that it currently is. Courses which are taught in both terms will have the option to include more material in the winter term compared to the fall.

Analyses of existing U of T engineering programs based on the 2017-2018 CEAB snapshot year indicate that some programs will need to make some changes in order to accommodate a fall study break within the minimum path accounting system that most used. With the use of so-called "K-factors" and careful counting of all student time spent on their work, the programs will be able to adapt to this change. While accreditation is clearly important, it should not be a governing consideration in whether to provide a fall study break in the opinion of the Undergraduate Curriculum Committee.

Constraints to Decision Process

- Match Arts & Science reading week (in Nov.) for consistency of need to be on campus
- If less than a full week is opted for, do not require the missing of another Monday given that Thanksgiving Monday already impacts courses with multiple sections
- To maintain the status quo is an unacceptable option in the committee's opinion.

Proposal for Fall Study Break:

1) Full week off in early November matching Arts and Science reading week
2) Two days off in early November matching Arts and Science reading week Thursday + Friday making a 4 day weekend

A vote was taken in the Undergraduate Curriculum Committee at an online meeting on March 23rd and the vote was unanimous for option 1. Members of the Dean's Executive Committee will be asked for their opinions as well.

Requirements for Success:

- Fall courses ***must*** have about one week of material removed, not simply compacted.
- There should be no large deliverables due in the few days after the break
- Professors must remove material from their fall courses. It's important enough to state it twice.

Appendices:

Appendices are available at: https://www.engineering.utoronto.ca/about/governance/faculty-council/2019-2020-academic-year/