



MANAGEMENT ENGINEERING

Class Profile

Class of 2022
University of Waterloo



Before we get into it – what *is* Management Engineering?

The question we get asked by family, friends, and sometimes by our classmates. And yes, it is a real engineering.

As the [University of Waterloo Management Engineering website](#) states, we aim to:

“Optimize the world around you”

The University of Waterloo offers Canada's first and only Management Engineering program. In the program, we learn skills to analyze and increase efficiency and effectiveness of products and organizations, including data analytics, software engineering, information systems and supply chain management.

WATERLOO | ENGINEERING





Analyst Notes

About Our Class

We began school in **September 2017** in 1A with 88 classmates, and **graduated in April 2022** in 4B with 75. As 8 stream students, we began with 8 months of school, then alternating between 4 months of school and 4 months of co-op, to total **five or six co-op terms** in the **4 2/3 years of our degree!** Through our degree, we took 44 courses, worked 3840 hours on co-op and even appeared in one [music video](#).

Completion of Survey

This survey was sent to the 4B Management Engineering class on April 13th, 2022 and closed on June 23rd, 2022. Of the 75 students in our class, **52% completed this survey** (39 students). All questions were made optional and the survey data was collected anonymously to ensure the class felt comfortable providing data for this class profile. At the time of the profile completion, the exchange rate is: \$1 USD = \$1.34 CAD.

Analyst Notes

Thank you for reading the Management Engineering 2022 Class Profile! We are so excited to have completed it, and couldn't have done it without the participation of the class, collaboration with other 2022 Engineering classes and inspiration from previous programs & cohorts to have produced this profile in the past. Please note – this is in no way affiliated with the University of Waterloo.

MGTE 2022 Superlatives

Class Clown

Peter Bondi

Best Shoulder to Cry On

Peter Bondi

Biggest Flirt

Lucas Ungaretti

Best Hair + Nicest Eyes

Jaad Van der Wee

Best Dressed

Hiba Tawfeeq & Mo
Quaderi

Most Likely to get ID'd at 30

Joy Lin

Most Athletic

Jeff Quiambao

Most Likely to be on Forbes 30 under 30

Amy Tai



MGTE 2022 Superlatives Honourable Mentions

Class Clown

Nadine Sison, Hiba Tawfeeq, Hamza Kazmi, Mayyar Al Atari, Josh Ghori, Akash Desai, Jeffrey Quiambao, Matthew Schneider, Ryan How, Lucas Ungaretti

Best Shoulder to Cry On

Christina Lee, Anessa Ali, Emily Nairn, Lucy Fountain, Nayab Butt, Alik Poladain, Hiba Tawfeeq, Fatimah Areola

Biggest Flirt

Jaad Van der Wee, Emily Nairn, Hiba Tawfeeq, Mayyar Al Atari, Josh Ghori, Rushan Niazi

Best Hair + Nicest Eyes

Alik Poladain, Hiba Tawfeeq, Aaron Dai, Mayyar Al Atari, Rosa Kang, Joshua Ghori, Mo Qaderi, Emily Nairn, Cem Gunay, Adam Syed, Varoon Gupta, Melissa Tran, Jason Mah, Ruhollah Nasim, Cem Gunay, Lucy Fountain, Karim Abu Hassan, Akash Desai



Best Dressed

Peter Bondi, Jaad Van der Wee, Nayab Butt, Josh Ghori, Jason Mah, Adam Syed, Ryan How, Alik Poladian

Most Likely to get ID'd at 30

Evette Chan Lee, Dylan Hira, Kyle Li, Hamza Kazmi, Nadine Saison, Aaron Dai, Jon Black, Carla Leal, Emily Nairn, Bill Sheng

Most Athletic

Emily Nairn, Josh Ghori, Bradley Hallet, Derek Xiu, Samer Khalil, Alan Wu, Ryan How

Most Likely to be on Forbes 30 under 30

Alan Wu, Kanav Petkar, Peter Bondi, Samer Khalil, Fatimah Areola, Gary Yong

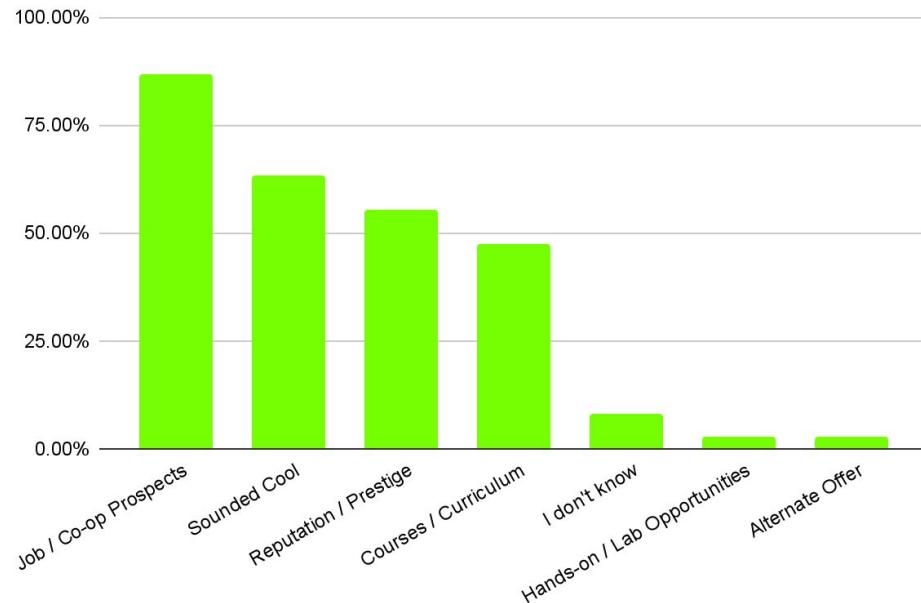
Demographics

Where are we from?
How did we end up in Management?
What is our background?

Why MGMT?

Over 75% of us chose Management due to the co-op opportunities and future job prospects.

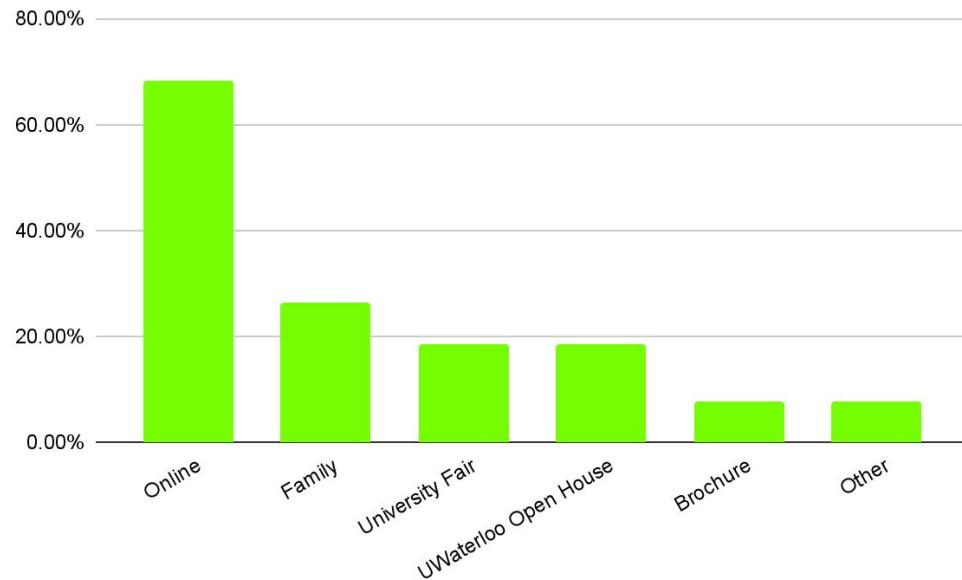
And of course, because it sounded cool.



How did you hear about MGMT?

70% of our class found the program when scouring the internet.

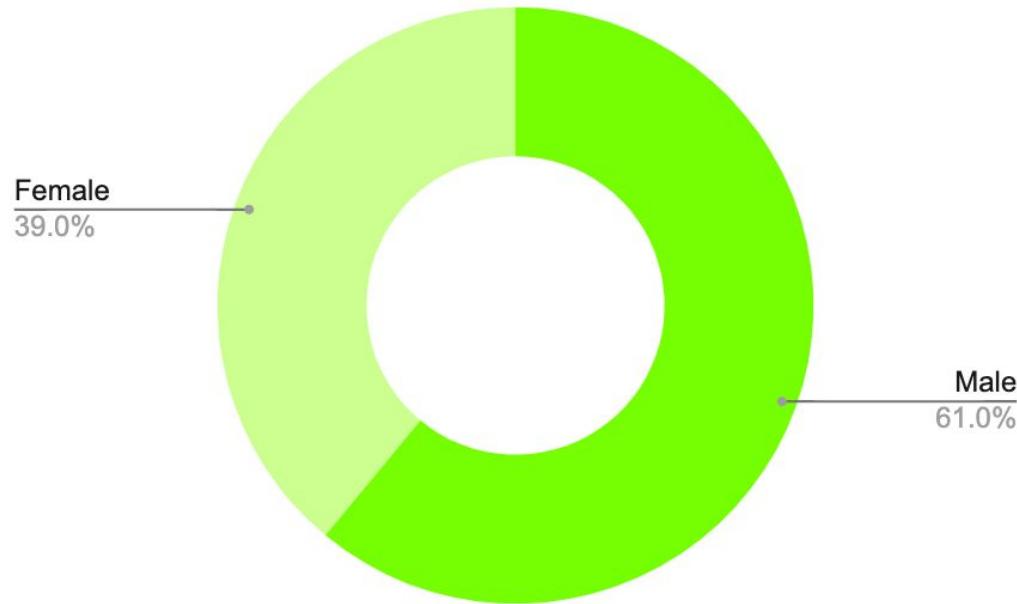
For those who didn't hear about Management from the internet, family, university fairs and open houses were other common ways.



What gender do you identify as?

The guys outnumbered the girls in our class, but we still had more females compared to the UW Eng average.

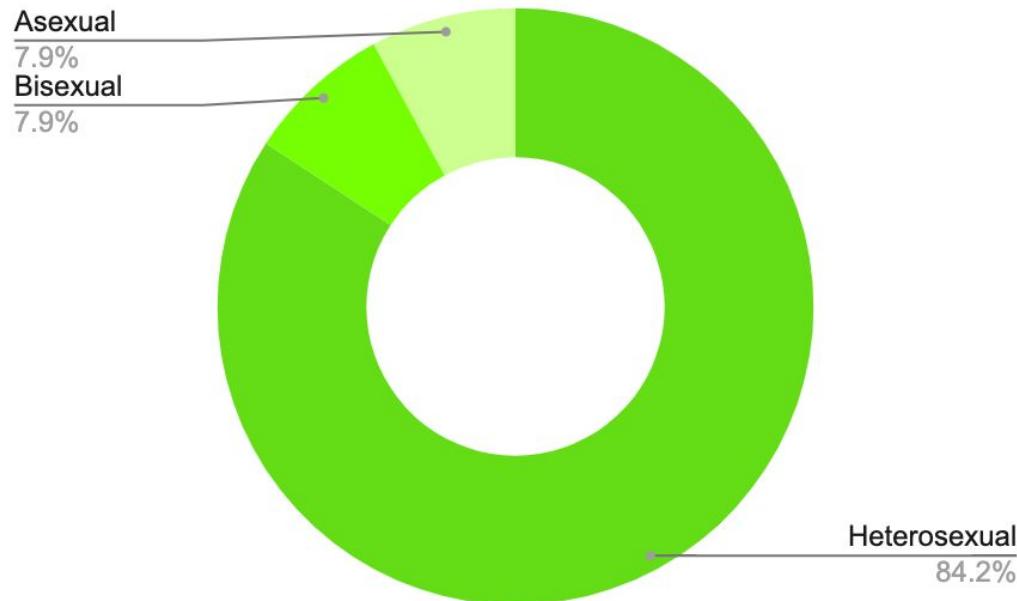
According to the Faculty of Engineering statistics, our class began in 2017 at exactly 50/50. Our gender ratio has always been higher than the University of Waterloo average of 32% females.



What is your sexual orientation?

The majority of the class identified as heterosexual.

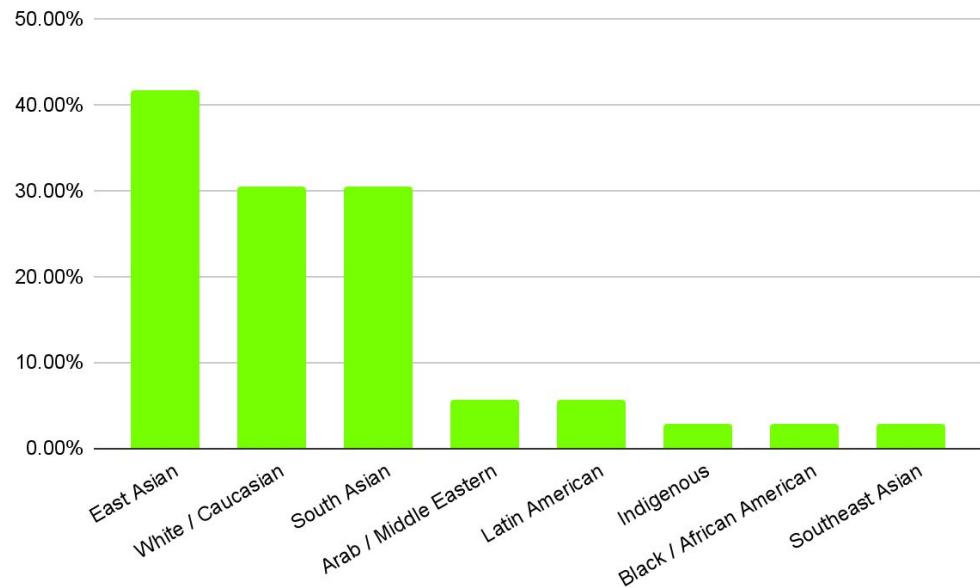
With almost 16% of the class identifying as part of the 2SLGBTQ+ community.



What is your ethnic origin?

Our class is very diverse.

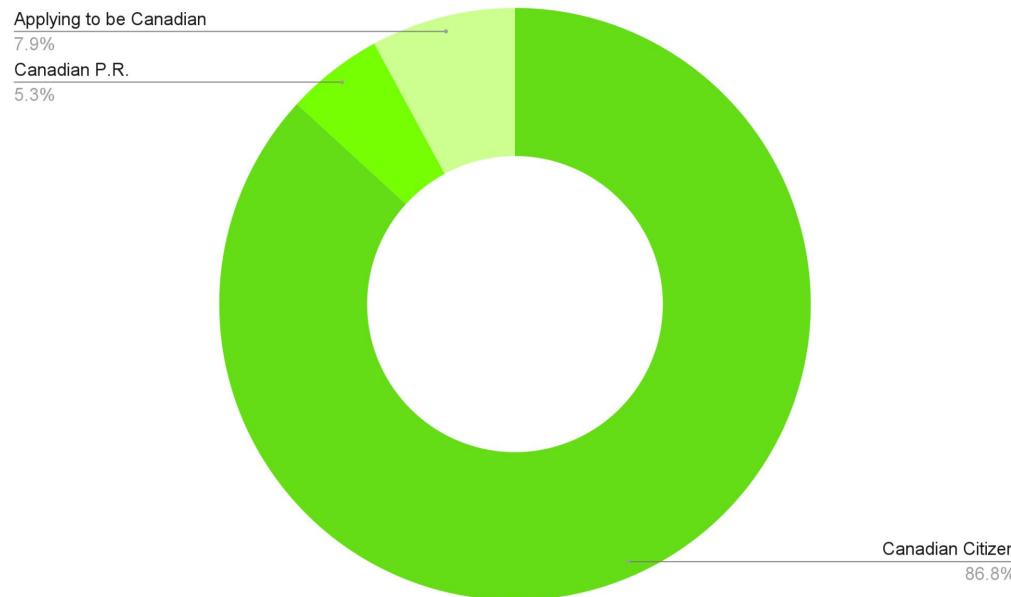
The majority of the class identified as either East Asian, White, or South Asian.



What is the status of your citizenship?

Most of us are Canadian Citizens.

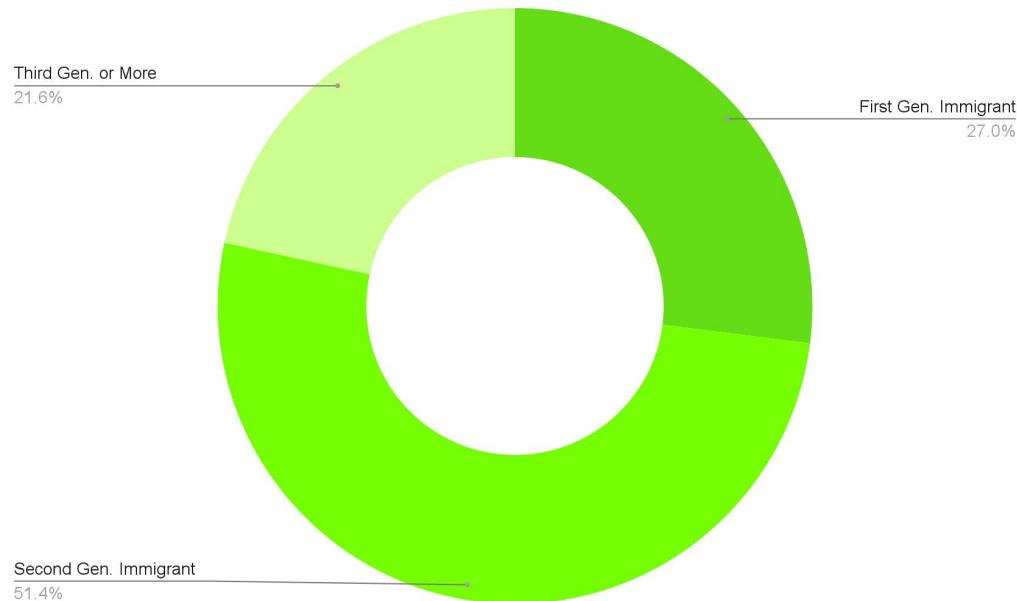
100% of us love Tim Hortons.



How long has your family been in Canada?

50% of the class had at least one parent born outside of Canada.

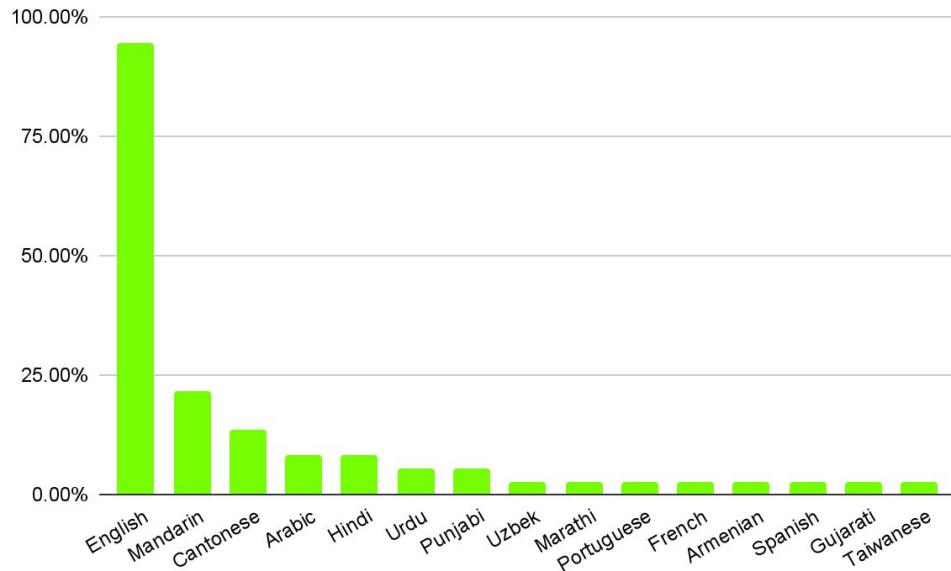
Over a quarter of the class are first generation immigrants, while the remainder have had family in Canada for over three generations.



What languages do you speak at home?

We communicate with our families in English for the most part.

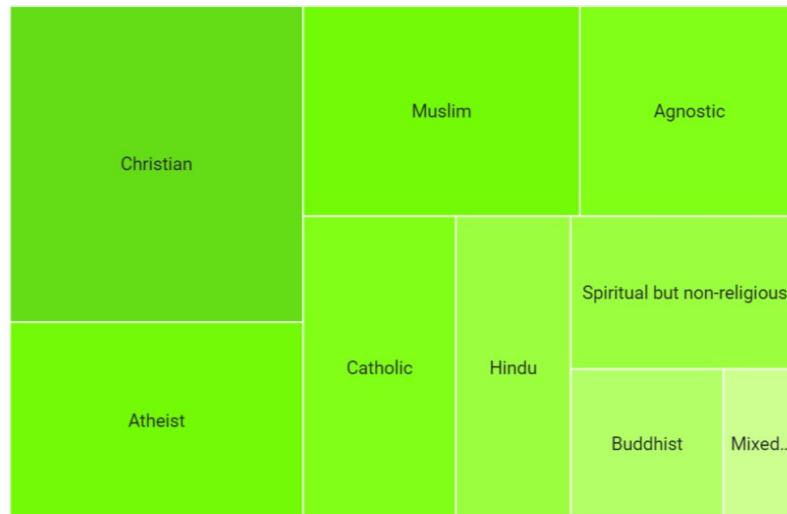
14 other languages are spoken at home!



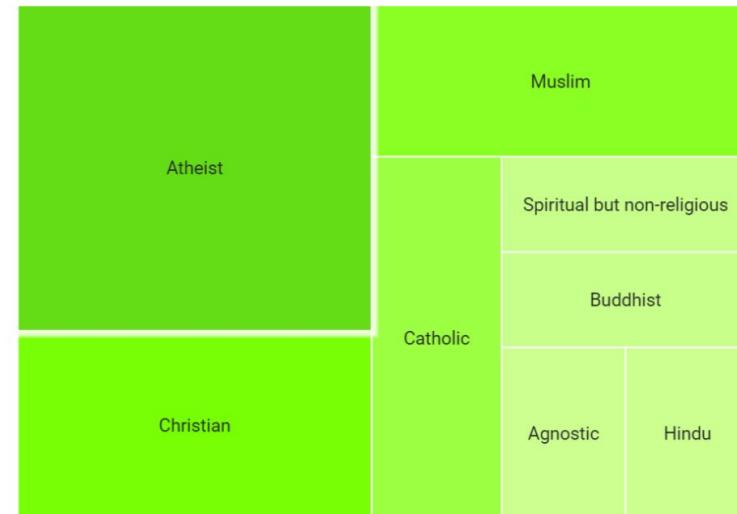
What are the religious beliefs of you and your family?

69% of us have the same religious views as our families.

Parents



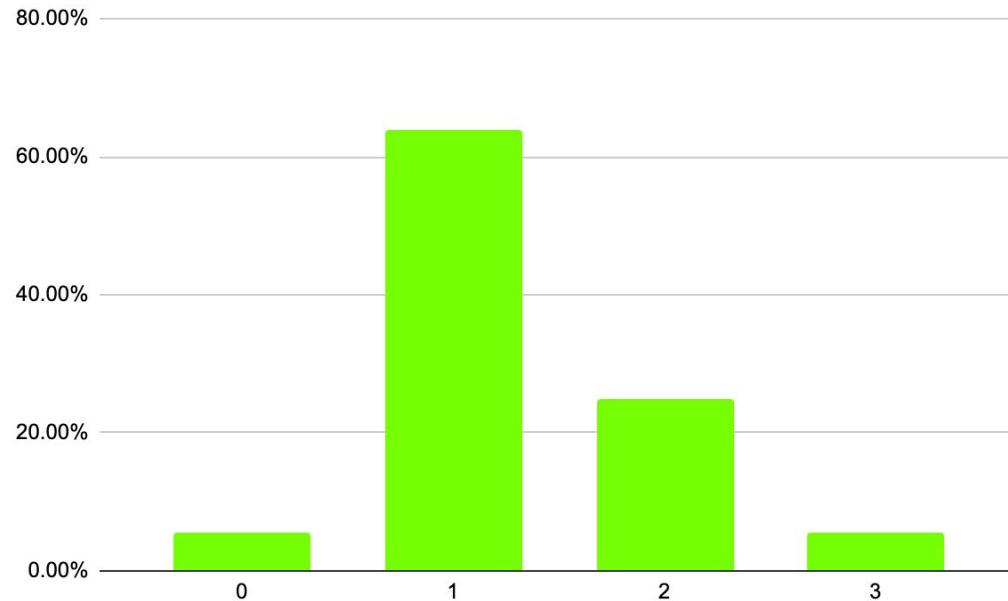
The Class



How many siblings do you have?

95% of us have at least one sibling.

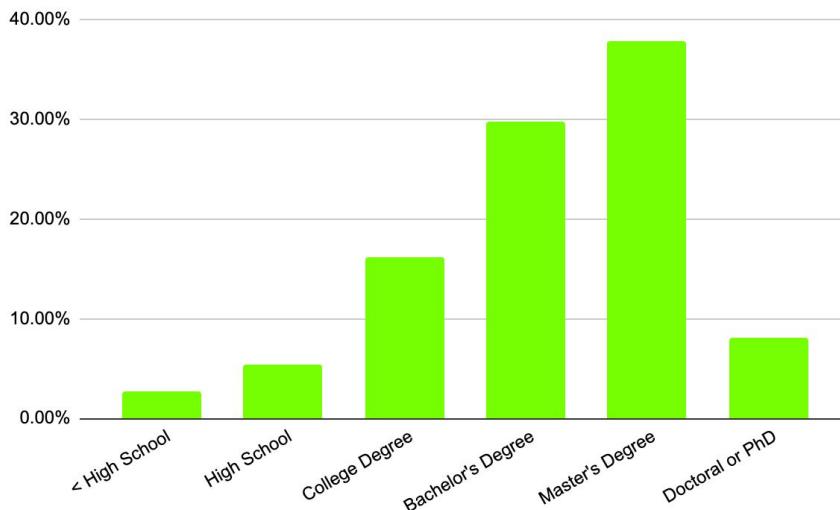
A few of them have even followed our footsteps to become future Management Engineers.



What is your parents' educational background?

70% of us have at least one parent with a STEM education.

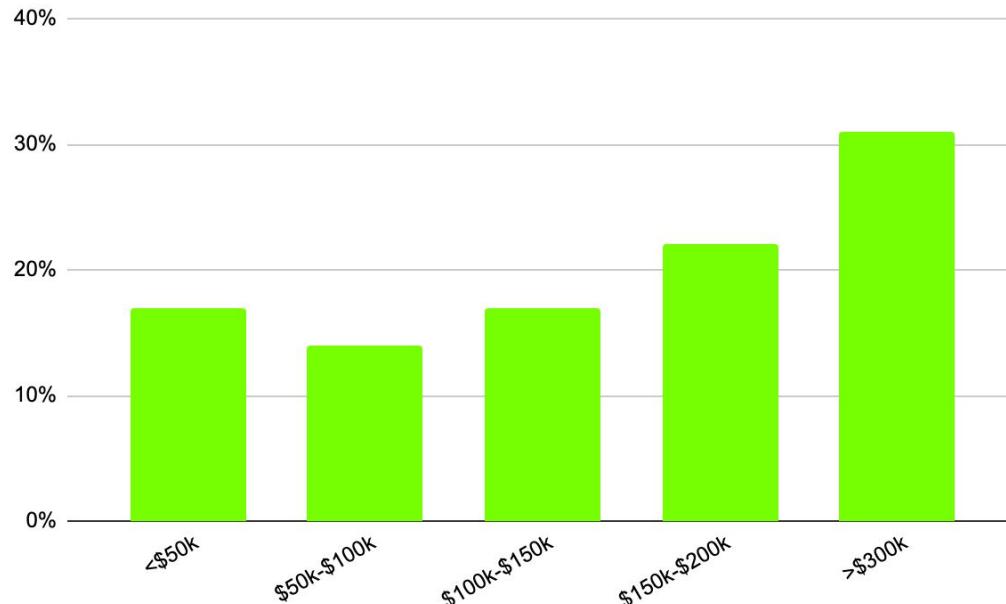
The apple doesn't fall far from the tree!



What is your family household income?

70% of the class was above the 2019 median Canadian household income.

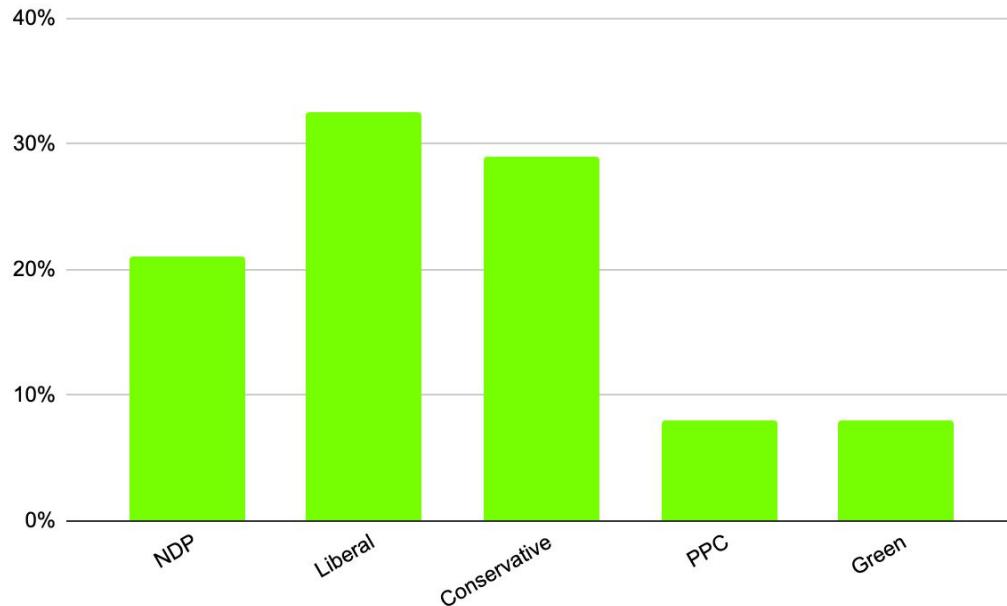
The median household income in 2019 was \$98K.



What party did you vote for in the last Federal election?

We voted to keep Trudeau in for another term.

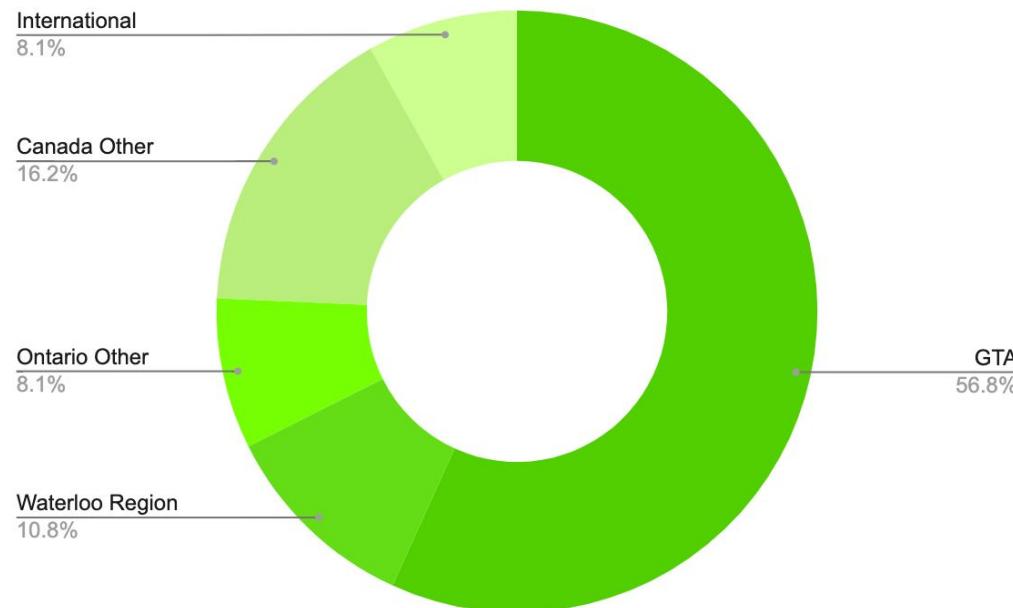
The Liberal Party was the highest supported in our class, followed closely by the Conservative Party.



Where did you go to high school?

The majority of us stayed relatively close to home.

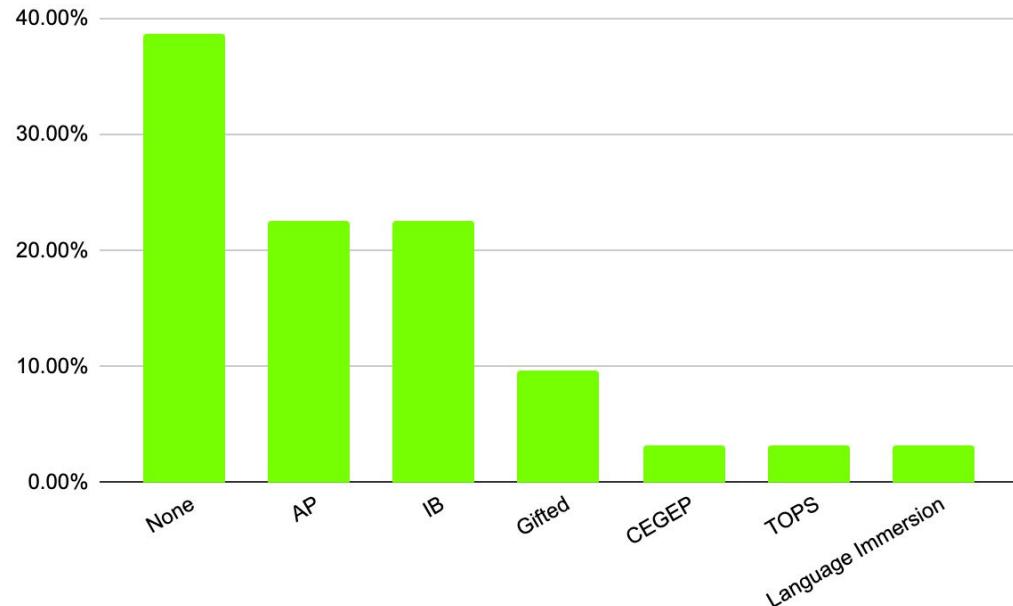
While 24% of the class came from out of the province.



Did you take any academic programs in high school?

IB & AP were common academic programs in our class.

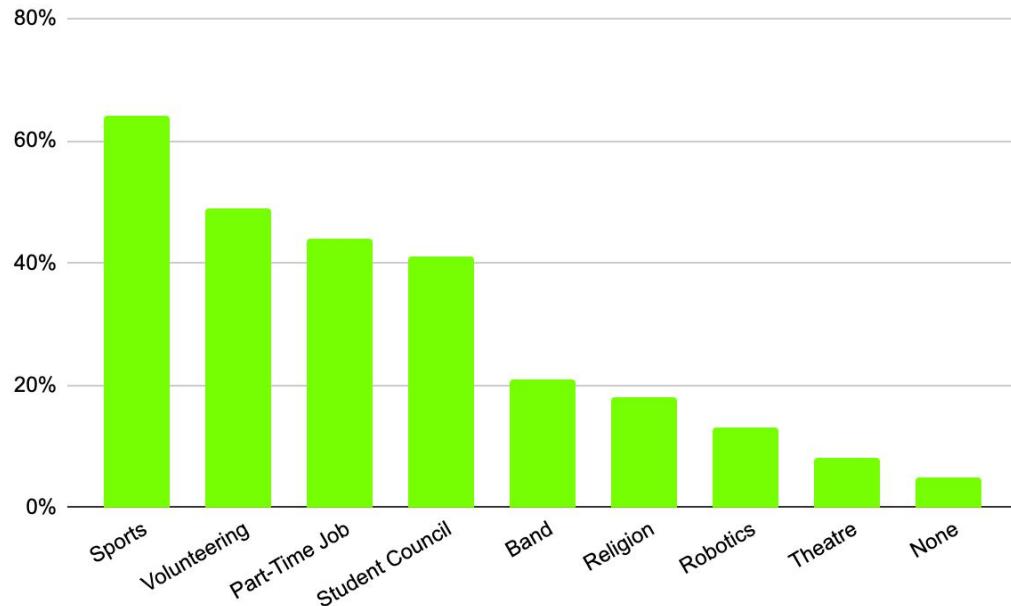
Almost 40% of our class did not participate in any advanced academic programs in high school.



What kind of extracurriculars were you involved in high school?

We balanced extracurriculars with our studies to ensure we had a high enough average to get into UW Eng.

Almost half the class participated in extracurriculars for over 10 hours per week. Some impressive time management skills.





Management Engineering 1A, Fall 2017

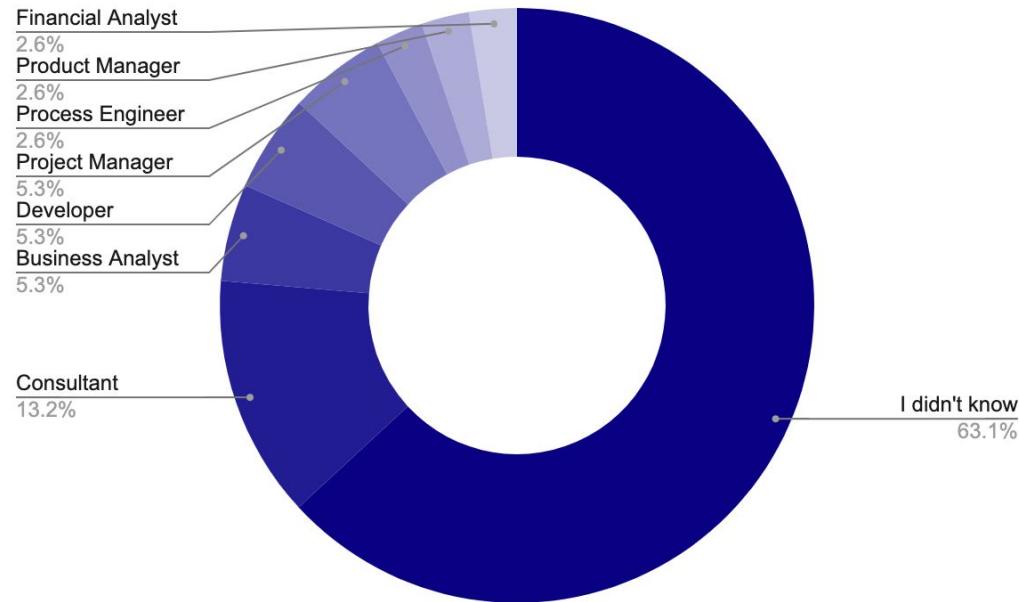
Academics

What were our grades like?
What was our FYDP about?
Did we ever cheat?

Coming into MGTE, what were your career aspirations?

As 17 and 18 year olds, we didn't know what we wanted to do.

Fair enough.

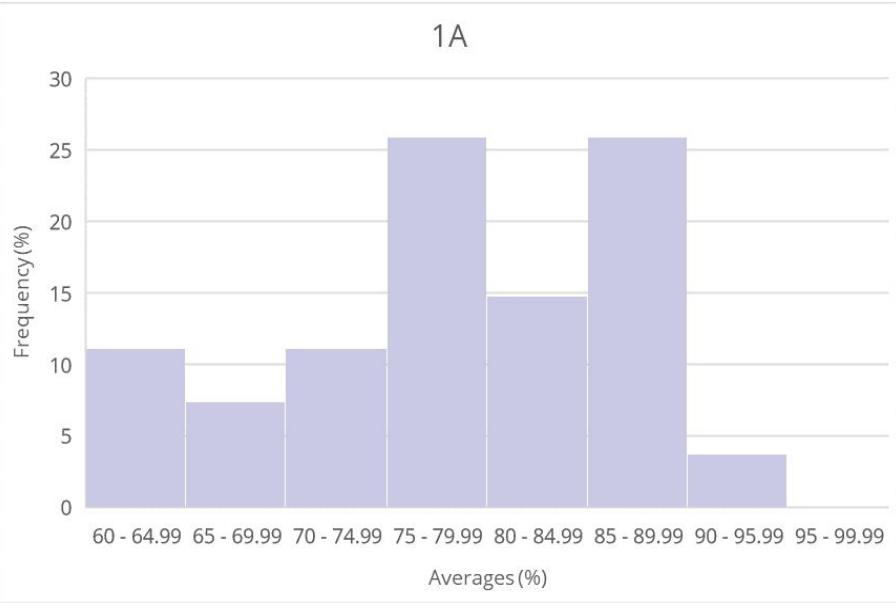


How did you feel about our courses?



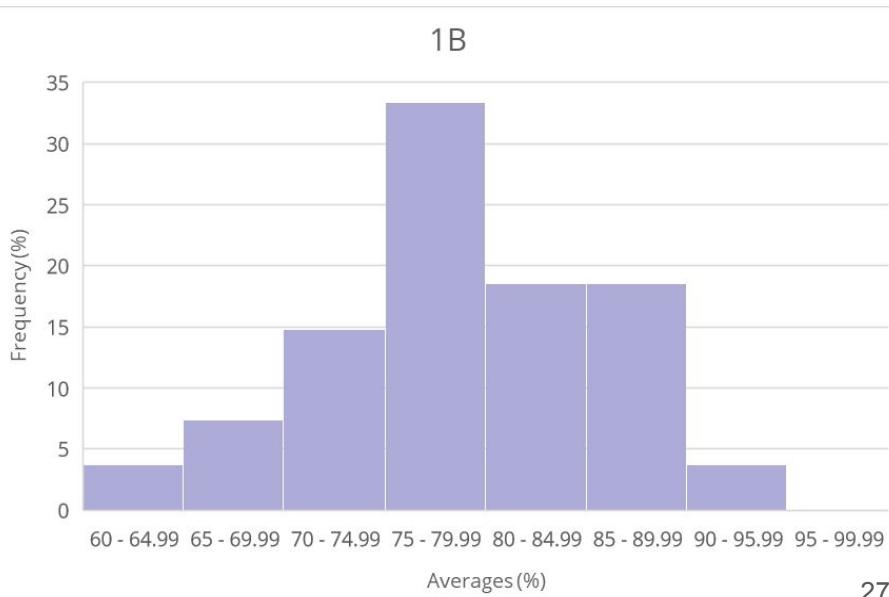
1B was the most difficult term for our class, and ended up being the most disliked term. Though most people seemed to think 4A was the easiest term, the last term (4B) was everyone's favourite!

1A



What were your averages in 1A and 1B?

1B

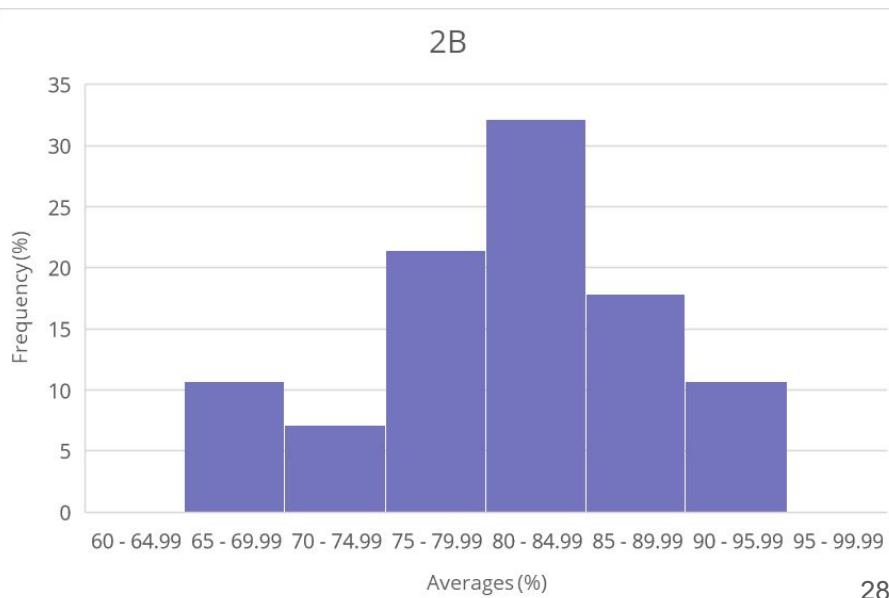


2A

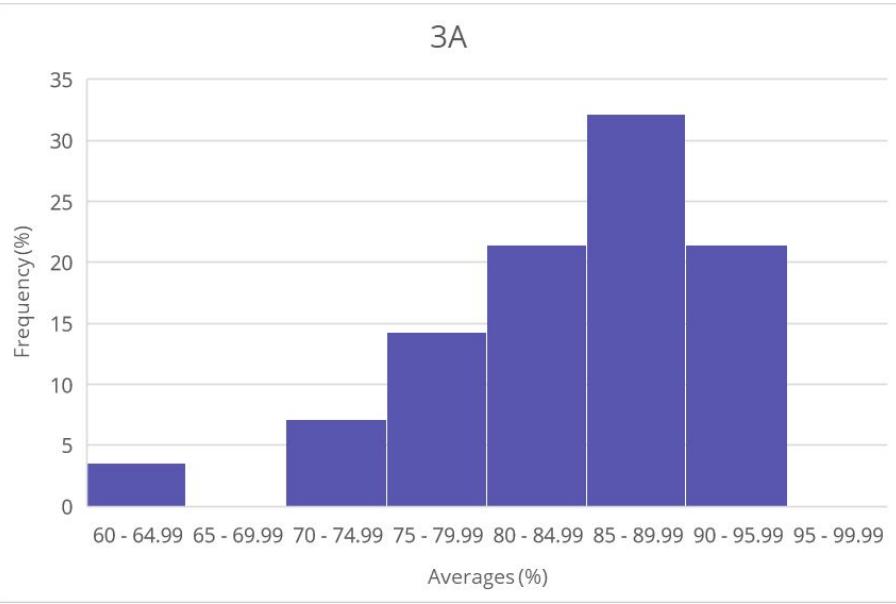


What were your averages in 2A and 2B?

2B

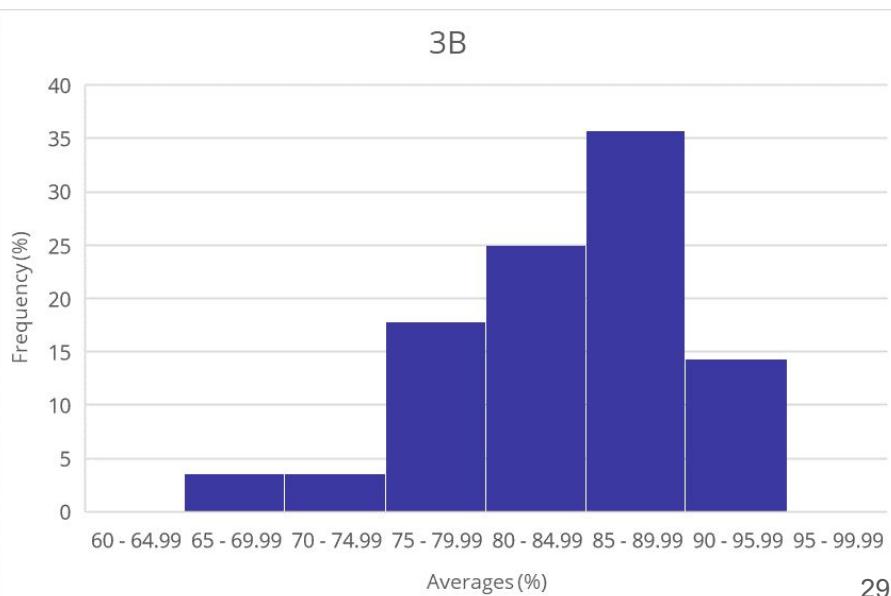


3A

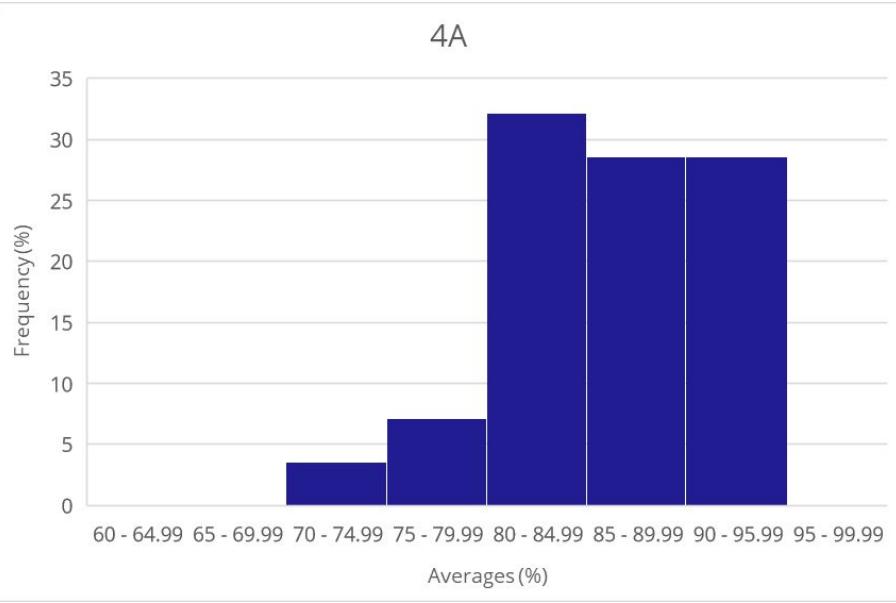


What were your averages in 3A and 3B?

3B

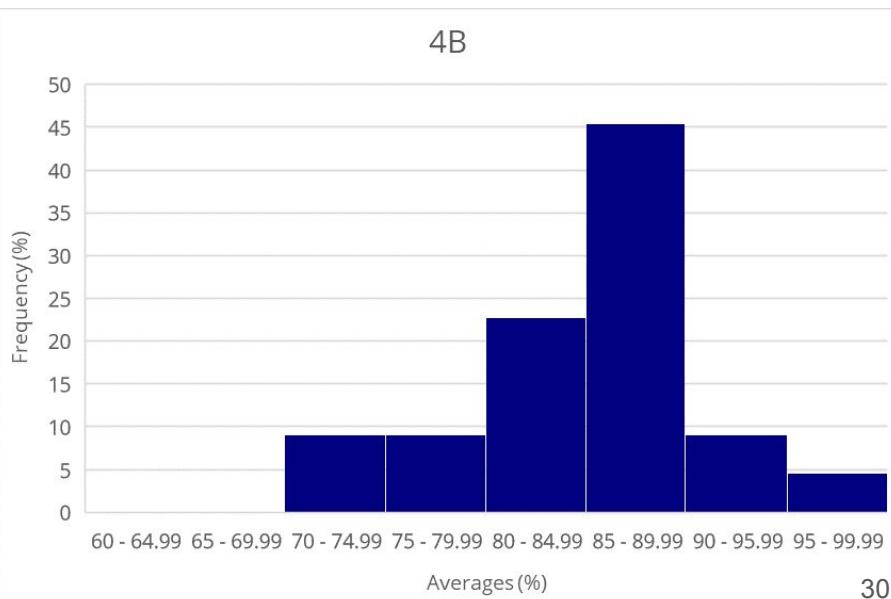


4A



What were your averages in 4A and 4B?

4B

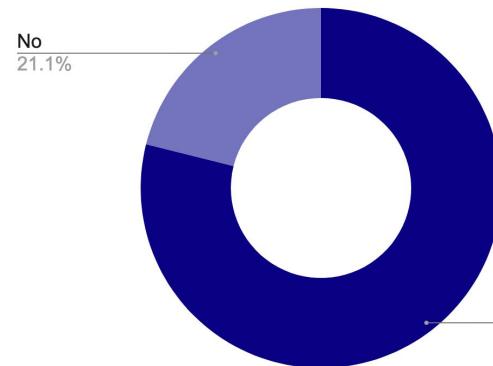


Have you ever failed an exam or course?

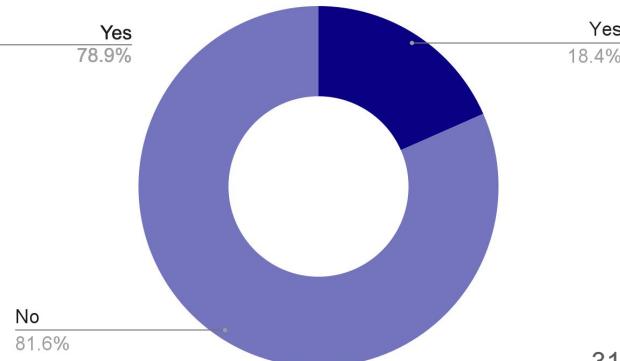
The most failed course was...you guessed it...CHE102!

Which for anyone who has taken the course, should be no surprise.

Failing an Exam



Failing a Course

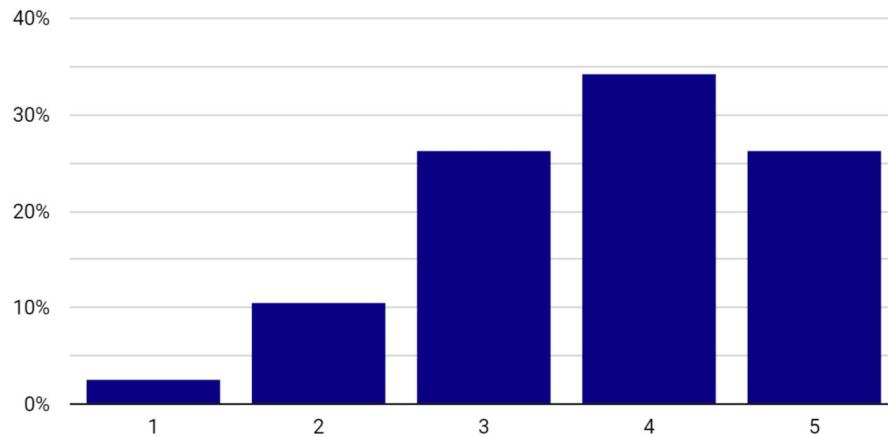


How proud were you of your FYDP project?

On a scale of 1 (not proud at all...) to 5 (extremely proud)

Our FYDP projects were something to be proud of.

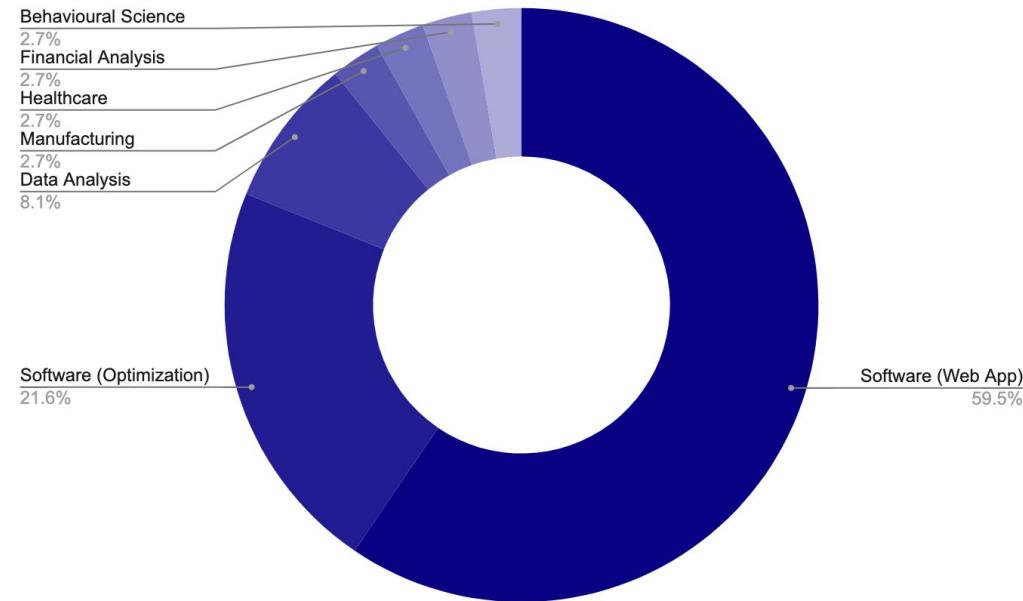
However, 92% of people say they are not likely to pursue it after graduation.



What type of project was your FYDP?

Over **80%** of our projects were software focussed.

After having many software courses throughout our degree, we were able to apply them!



To learn more about our capstone projects, read our project abstracts [here](#).



Management Engineering 1B, Winter 2018

Management

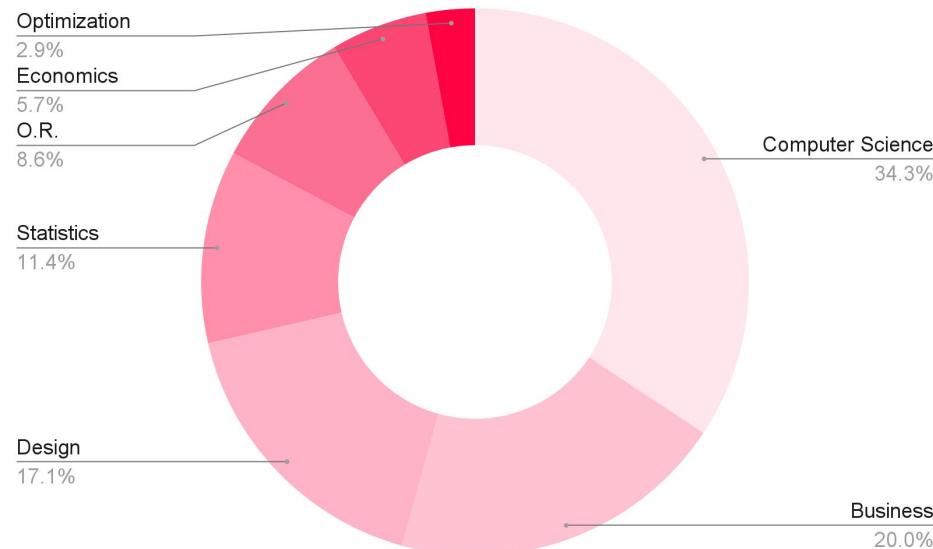
What courses did we like?
Did we enjoy the program?
What is Management?

What types of courses do you wish there were more of?

We wish there were more CS & business courses.

Double degree may have also been a good option.

O.R. = Operations Research



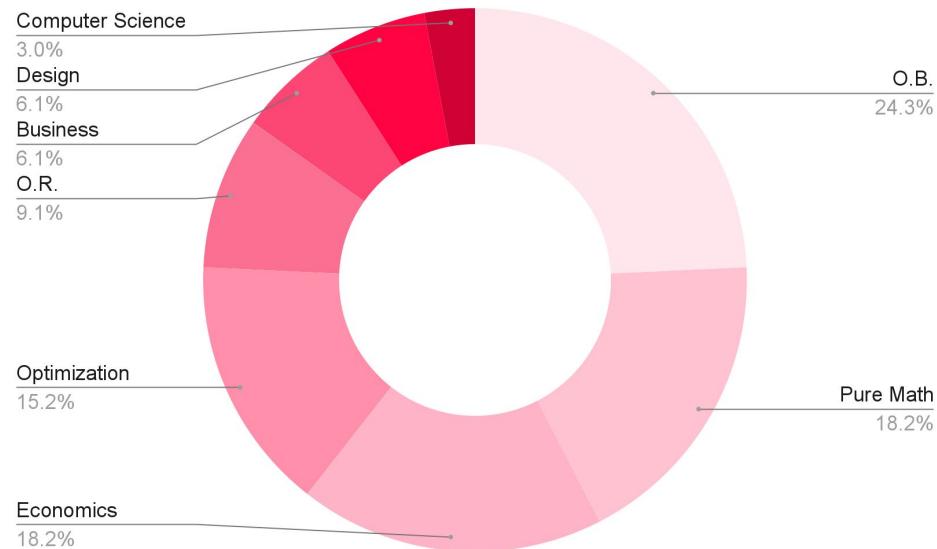
What types of courses do you wish there were less of?

We wish there were less organizational behaviour & math courses.

These courses can be seen as boring, and less practical to use on our co-op terms.

O.B. = Organizational Behaviour

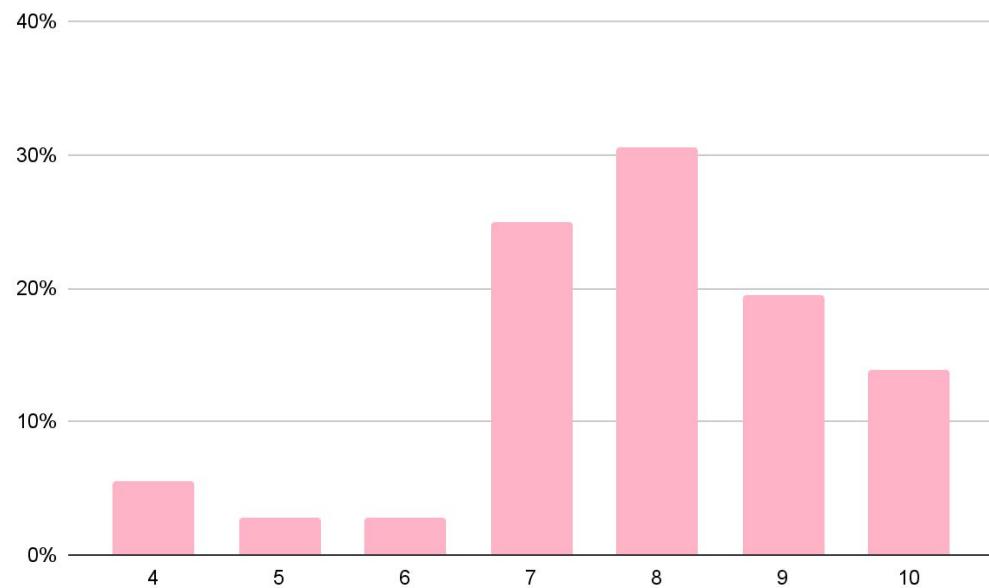
O.R. = Operations Research



On a scale of 1–10, did you get what you were aiming to get out of the program?

7.9/10 was the average rating for what we got out of the program.

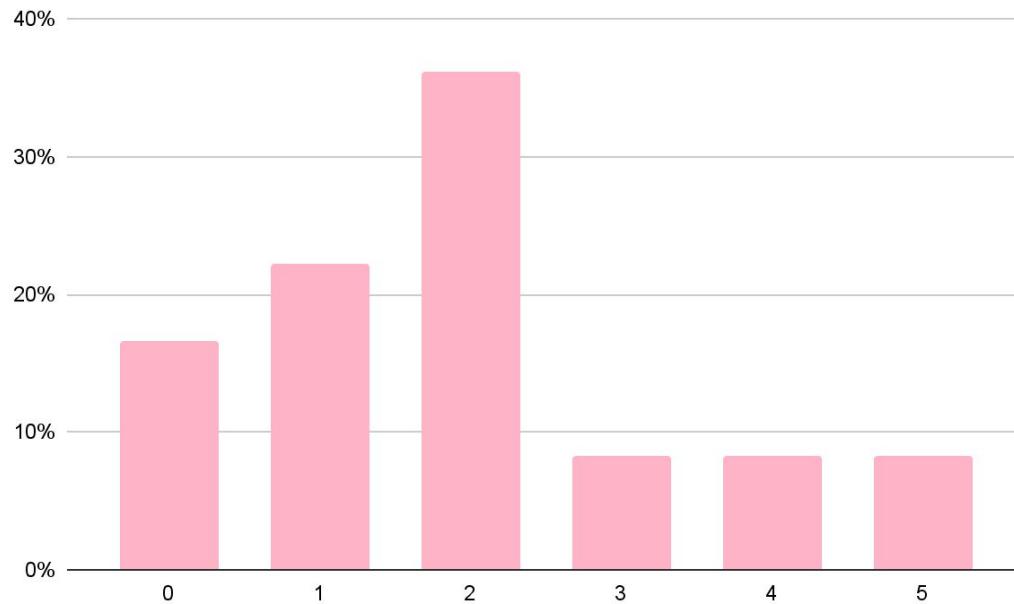
The majority of us are very content with our decision to take management!



How many of your 5 closest friends are in the class?

We've made some friends along the way.

The Management fam is a family biz.



What advice would you give yourself in first year?

“Everything will work out”

“Trust the process”

“Don’t be shy, be open, be confident and be proud of who you are!”

“Be kind”

“Don’t stress about marks, focus on getting adjusted to independent school life”

“Don’t be stressed or nervous, be open, be happy, be confident and join a club that you like: for example the board game club”

“Get help for your mental health”



What did you learn outside of the classroom?

“The opportunities that exist”



“I learned a lot about myself and the people around me. I learned a lot about dealing with people and what not to do with people, and how I should be more confident and proud of who I am rather than being totally reserved.”

“I learned a lot about myself”

“Fuck cancer. Waterloo and profs understanding and accommodating, gave me faith in other people. The dept was amazing through it all.”

“I went from hating probability to taking stochastics technical electives”

“Living independently”

“Got more comfortable with failures in life”

What is the most important thing you learned in university?

“Life is all about continuous learning, growing, making mistakes and a lot of hard work. Also, the only person you should compare yourself to is you”

“How to learn and work as an employee”

“Failure is a part of life, get comfortable with it sooner or later”

“How to write a resume”

“How to be flexible and deal with constant change”

“Experience > education”

“Importance of being open, being social and being confident in yourself”

“There is so much to be done to improve yourself as a person, yet so much benefit in doing so”

“Gratitude”

“Have fun and work hard”





Management Engineering 2A, Fall 2018

Covid-19

How did we prefer to learn?
How was the response?

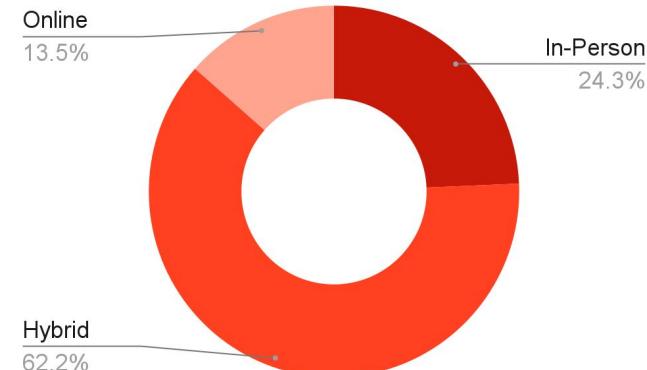
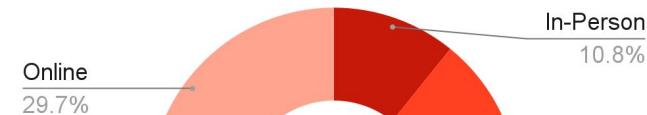
How did you prefer to learn and work?

Study Terms

More of us enjoyed working in person compared to in person school.

We sure love being able to watch lectures on 1.5x speed.

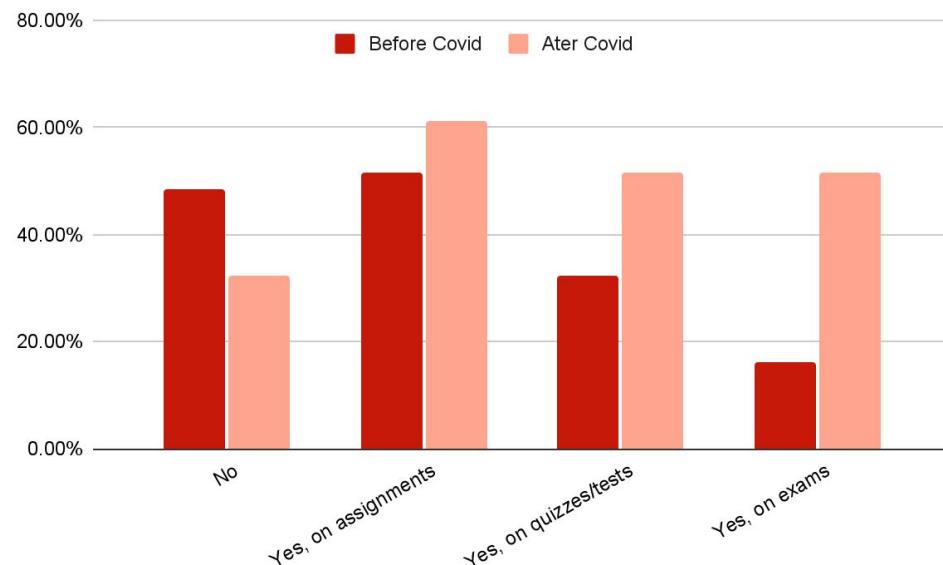
Co-Op Terms



Did you cheat before or after the switch to online learning?

Less than 40% of the class remained honest and didn't cheat during online learning

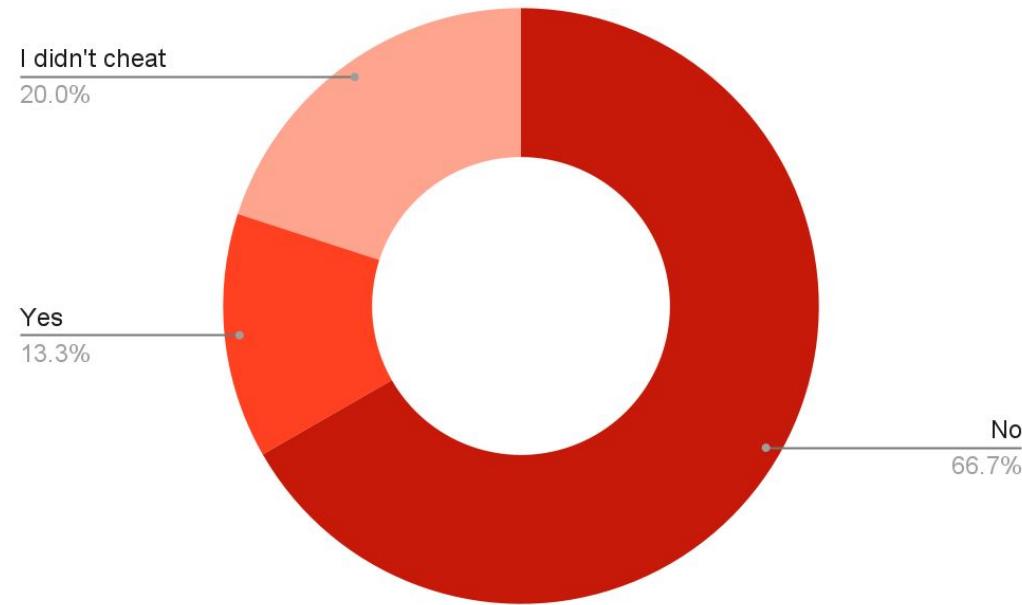
Cheating definitely spiked after the switch to online. UW never implemented a proctored exam system like Laurier and many other schools.



Do you feel guilty about cheating?

67% of the class doesn't feel guilty about cheating.

A shockingly high number, while only 20% of the class stayed true to Policy 71.

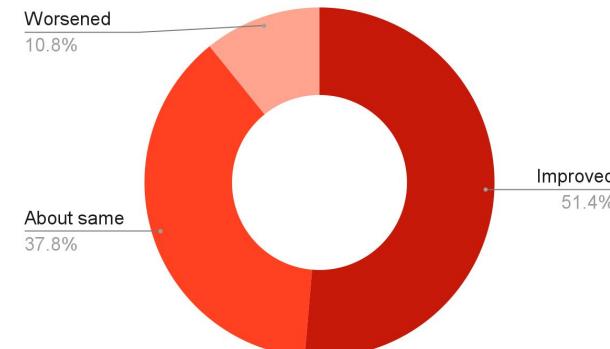


What was the effect of COVID on your grades and mental health?

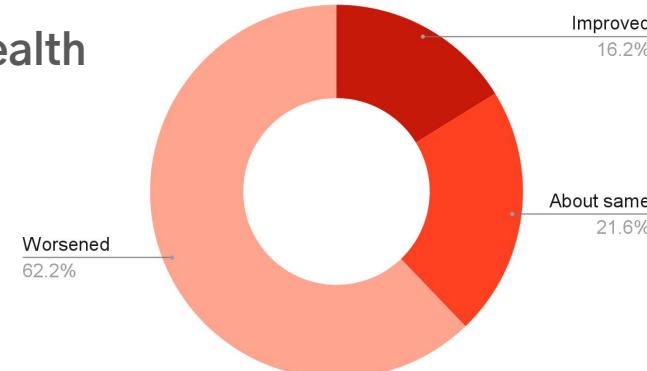
While grades increased, mental health was negatively impacted by COVID.

This doesn't come as a surprise, especially after seeing the number of people who cheated during assessments.

Grades



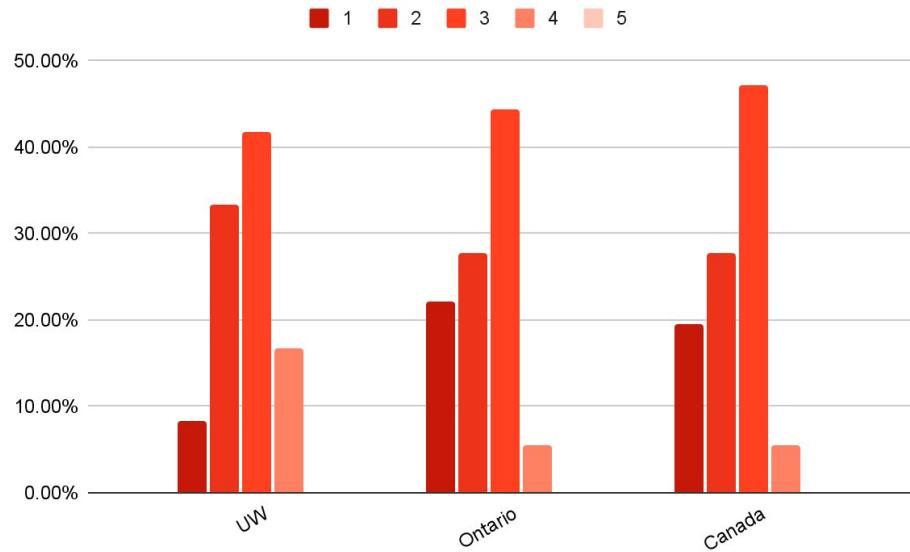
Mental Health



How do you think the following organizations responded to the COVID-19 pandemic?

We think the response to the pandemic was fair.

Although UW flipped between the return to in person class dates, among many other decisions impacting our learning, their response was rated higher than the provincial and federal governments.



What was something positive that came out of the pandemic?

We found the positives throughout the pandemic!

This included seeing family, have a greater work-life balance, learning new hobbies among many other things.

Physical Health
Mental Health
Travel
Home Time
Family
Less Expenses
Work Life Balance
Self Reflection
Hobbies
Friends



Management Engineering 2B, Summer 2019

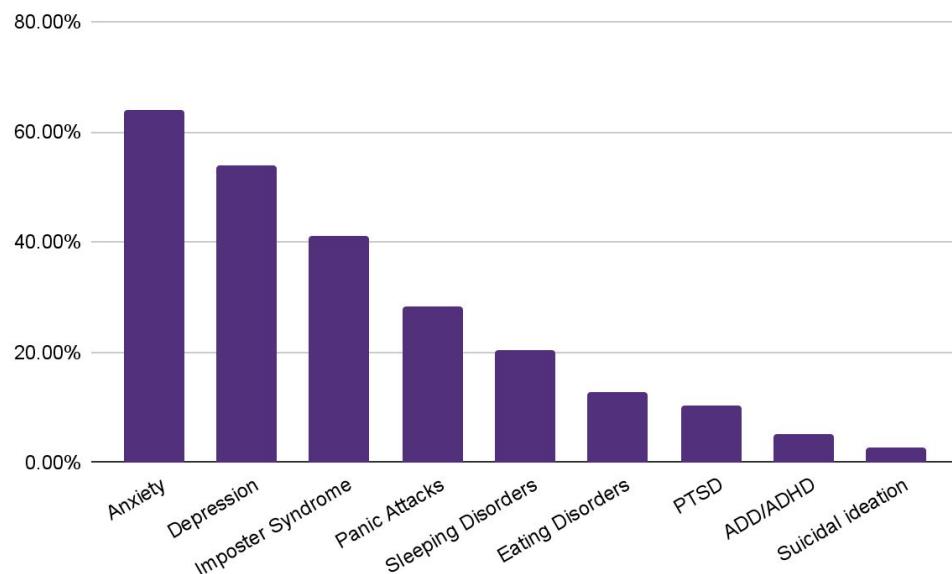
Mental Health

What impacts our mental health?
Did we seek help?
How were our stress levels?

Do you struggle with any of the following mental health conditions?

75% of the class struggled with some sort of mental health condition.

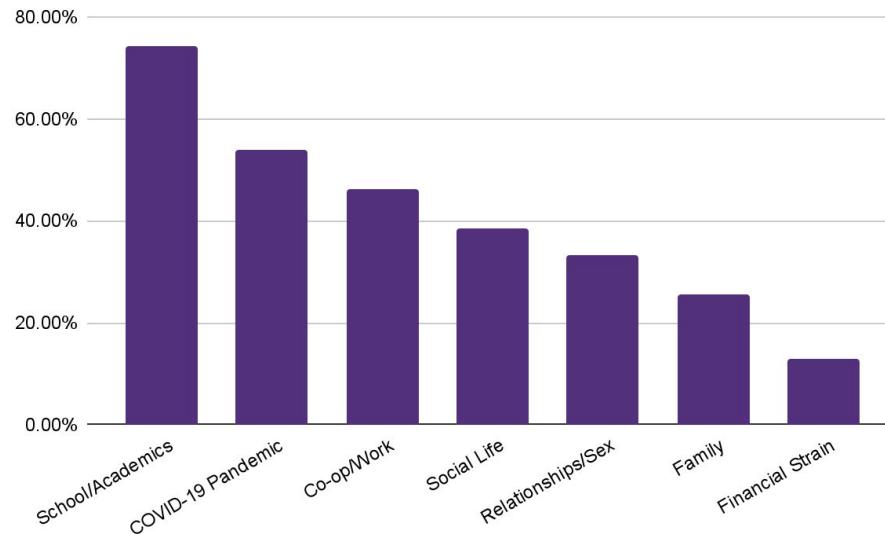
Anxiety was the top mental health condition experienced by the class, closely followed by depression and imposter syndrome.



What (if any) negatively impacted your mental health?

School & COVID both negatively impacted our mental health.

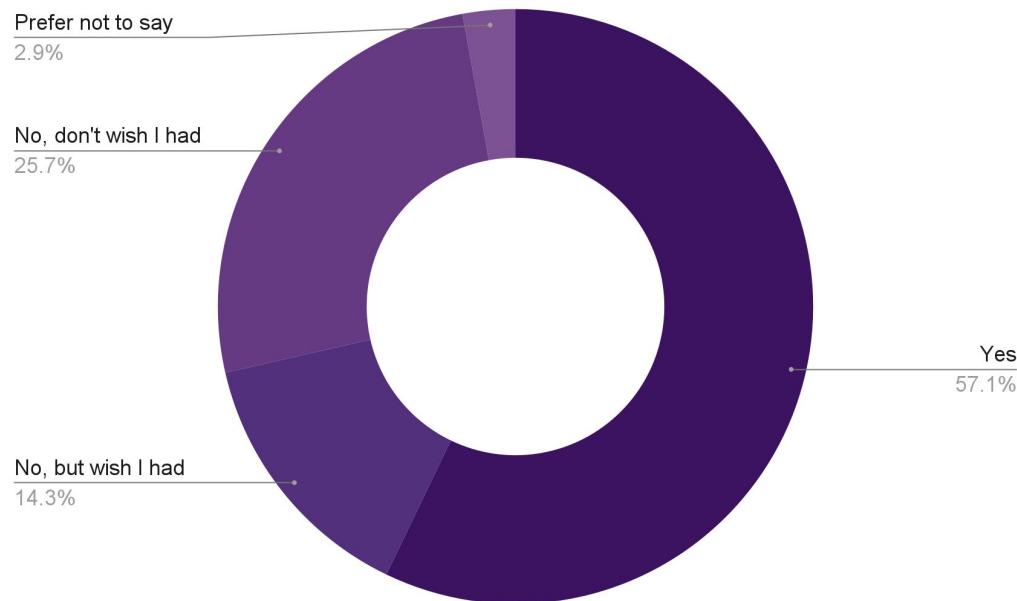
Unfortunately these aren't big shockers!



Did you seek help for your mental health?

Lots of us sought support.

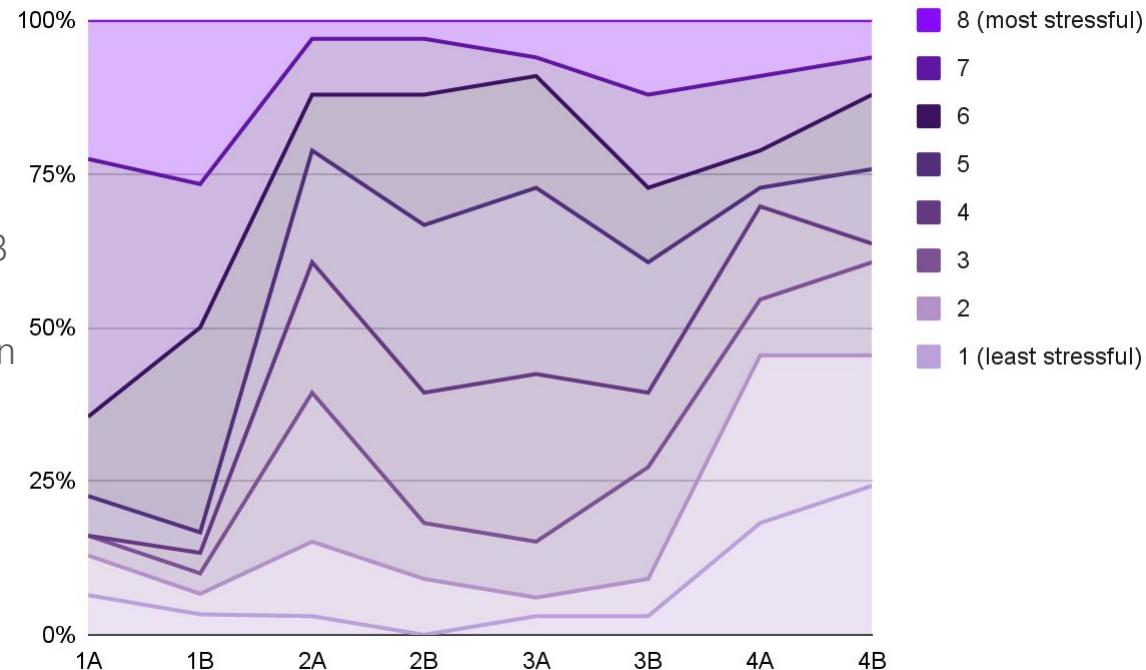
One of the biggest pieces of advice to our younger selves was to seek help!



How would you rank your stress levels of each term?

We found the earlier semesters much more stressful.

The most stressful terms were 1A and 1B – which happen to be the only two semesters with hell week (all midterms in one week).





Management Engineering 3A, Winter 2020

Lifestyle

How often did we...?

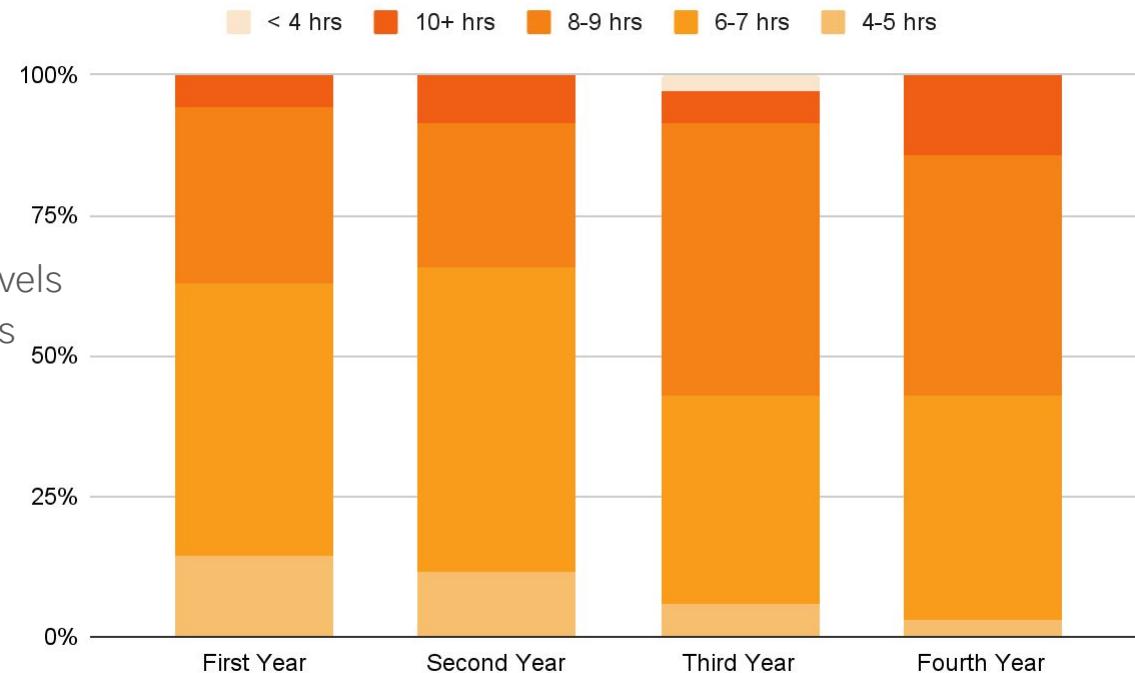
What were our relationships?

Have we ever...?

How much sleep did you get over the years?

After second year, we started sleeping much more.

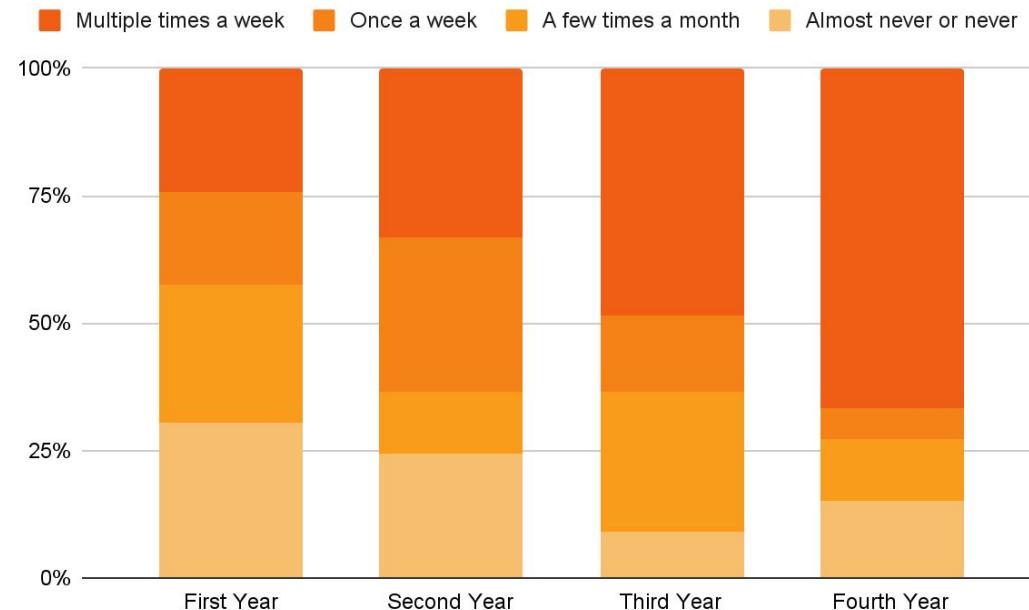
The relationship between the stress levels of each year and the amount of sleep is real!



How much did you exercise over the years?

We worked out more over the years.

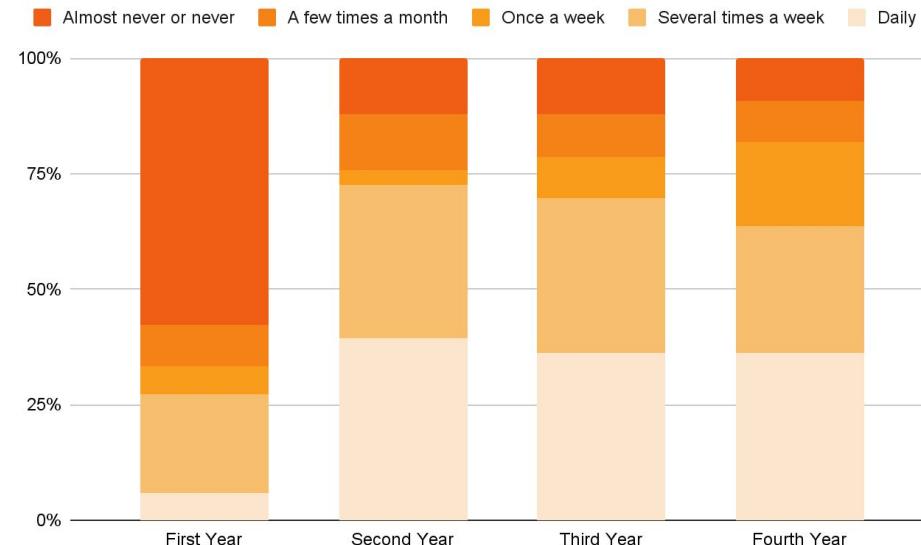
Less stress and more sleep + exercise, it might've taken us a bit but seems like we figured out a balance.



How much cooking did you do over the years?

After taking advantage of first year meal plans, we learned to cook.

Our cooking stayed pretty consistent after first year!



What was your favourite place to eat near campus?

Lazeez takes the spot as MGTE 22's favourite place to eat.

Closely followed by Shinwa, iPato and Harveys – we clearly value close proximity to CPH.

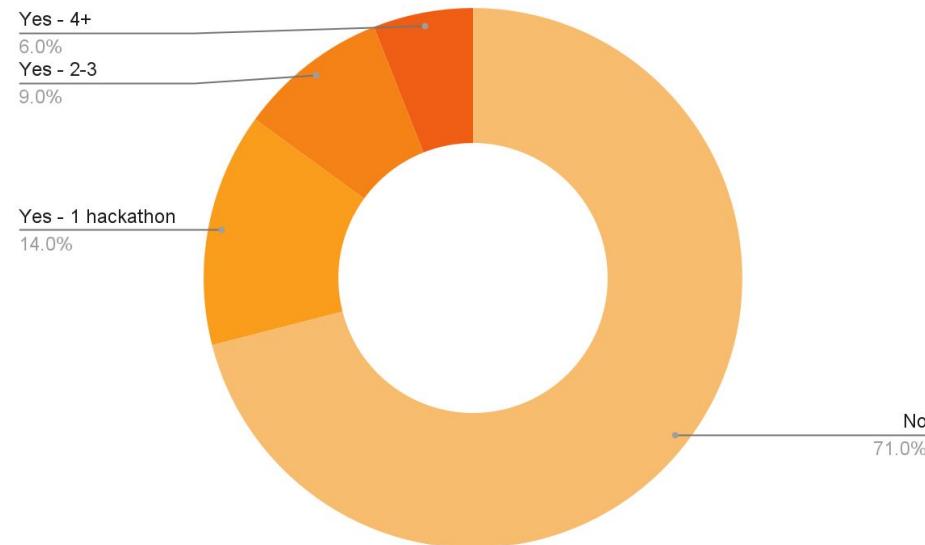
The word cloud features several restaurant names and their associated locations:

- Burrito Boyz
- Gol's Noodle
- Tokyo Sushi
- Kim's Kitchen
- iPotato
- Mel's Diner
- Fresh Burrito
- Tim Hortons
- NRB
- Shinwa
- Lazeez
- Bao Sandwich Bar
- Harveys
- Shawarma Plus
- Mozy's Shawarma
- Ken Sushi House

Have you ever participated in a hackathon?

6 of us won a hackathon over the years.

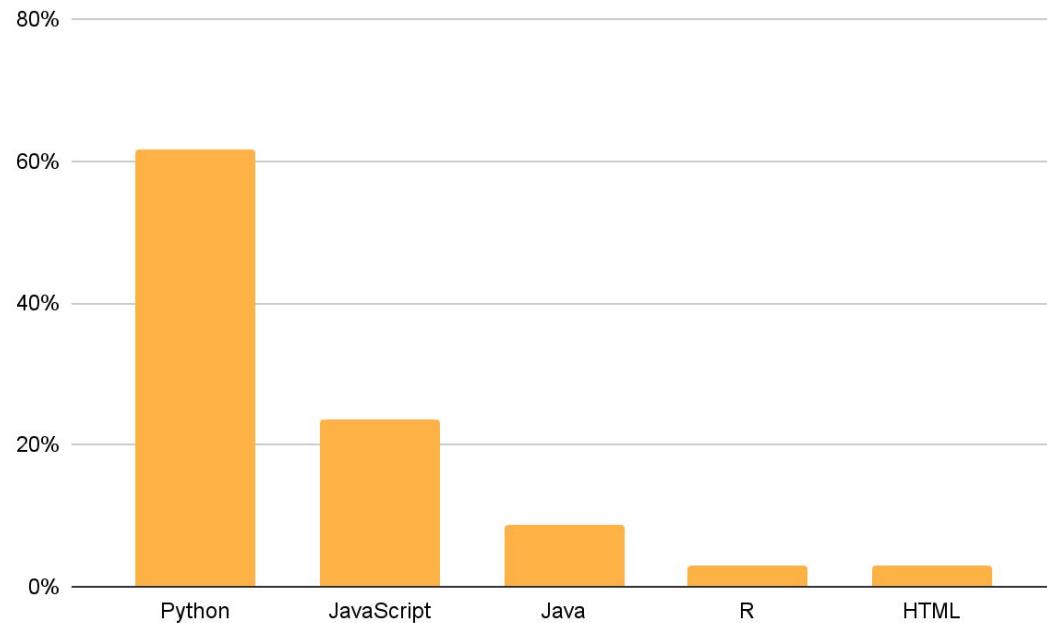
Only 30% of the class have ever participated in a hackathon, with popular hackathons being two on UW campus – Hack the North and StarterHacks.



What is your favourite programming language?

Over 60% of the class prefers Python.

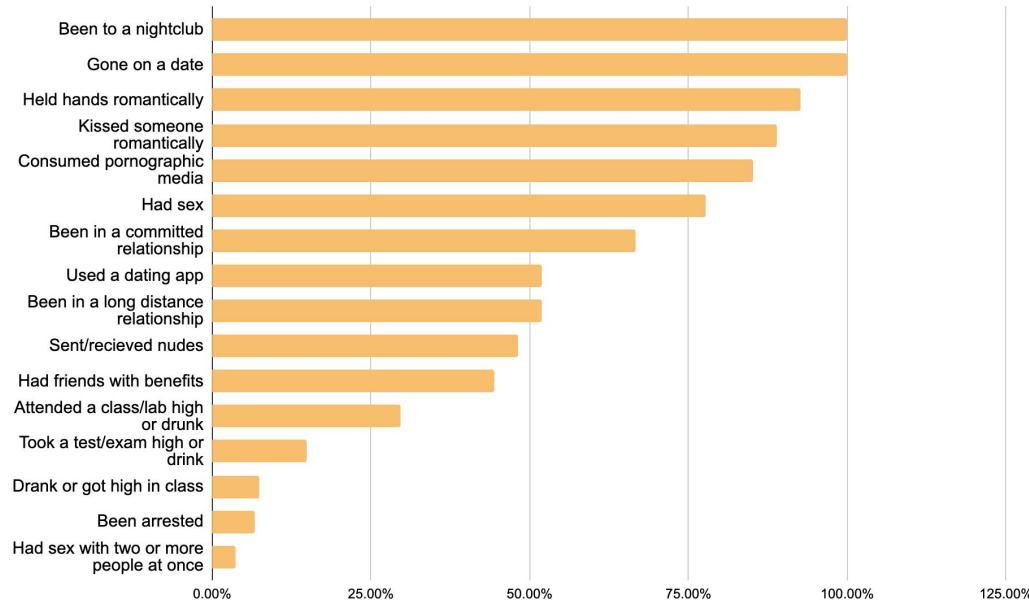
Even though we learned Java in our first programming course (MSCI121), Python took the top spot in MGTE's heart.



Have we ever...

Never have we ever 🤝 . . . 🖐

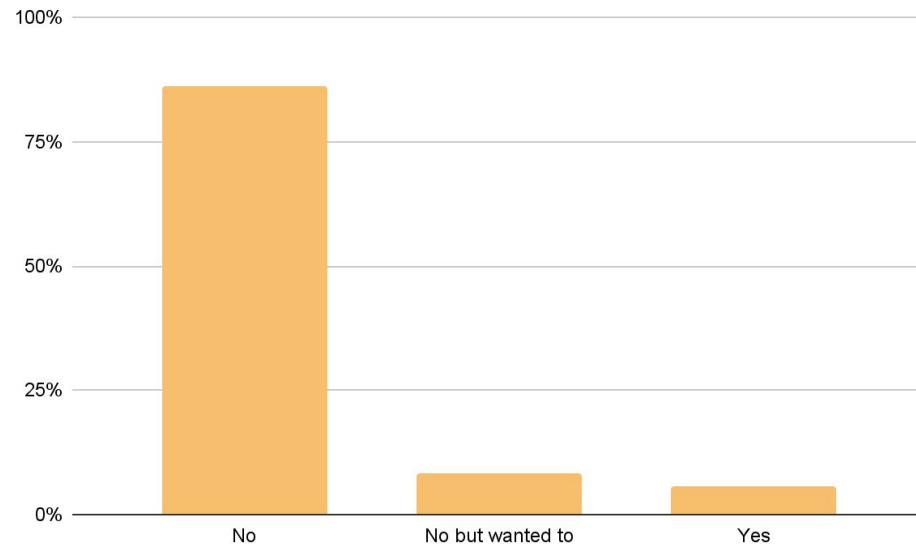
We've kept busy during university.



Have you ever dated someone in your cohort?

We've spent time in class crushin'
on each other.

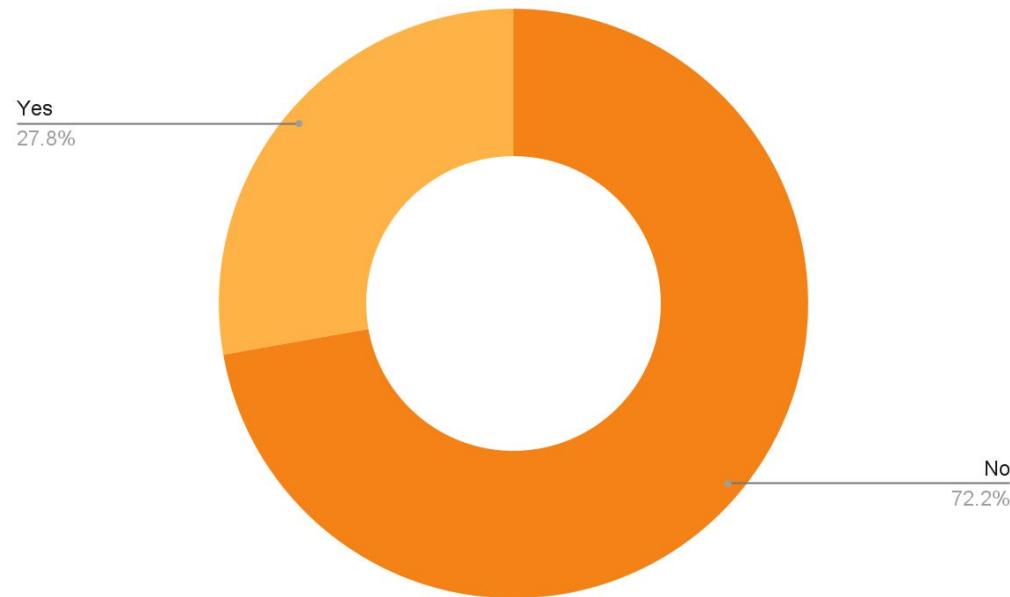
Only 2 people ever dated in our class,
despite a few more wanting to!



Have you found your life partner?

Almost 30% of us have found the one.

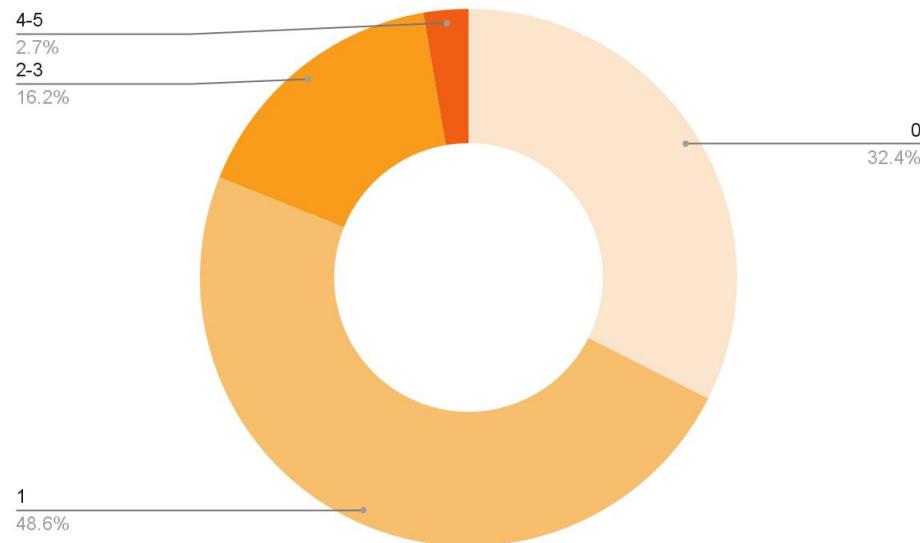
The rest of us are single & ready to mingle.



How many committed relationships have you been in over the past 5 years?

We kept our dating pretty minimal.

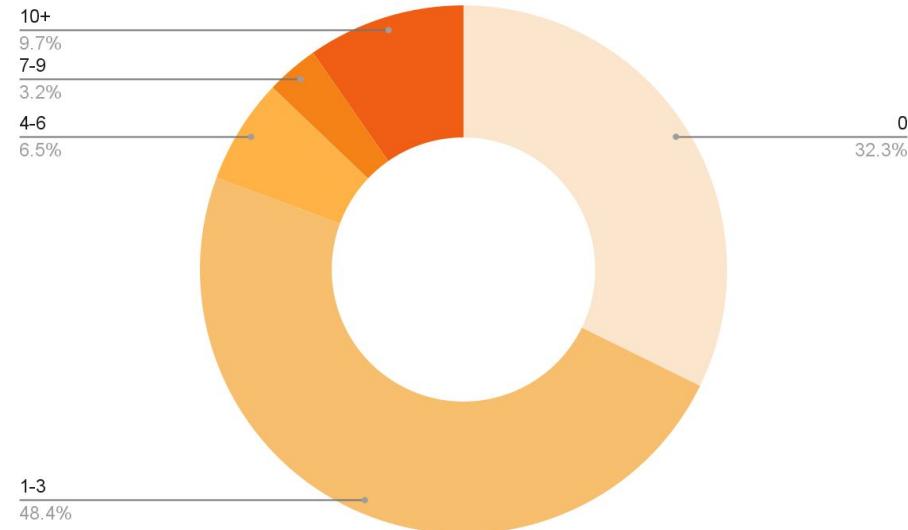
With over 80% of our class in zero or one relationships during the past 5 years.



How many sexual partners have you had?

Almost 70% of the class has had at least one sexual partner in their life.

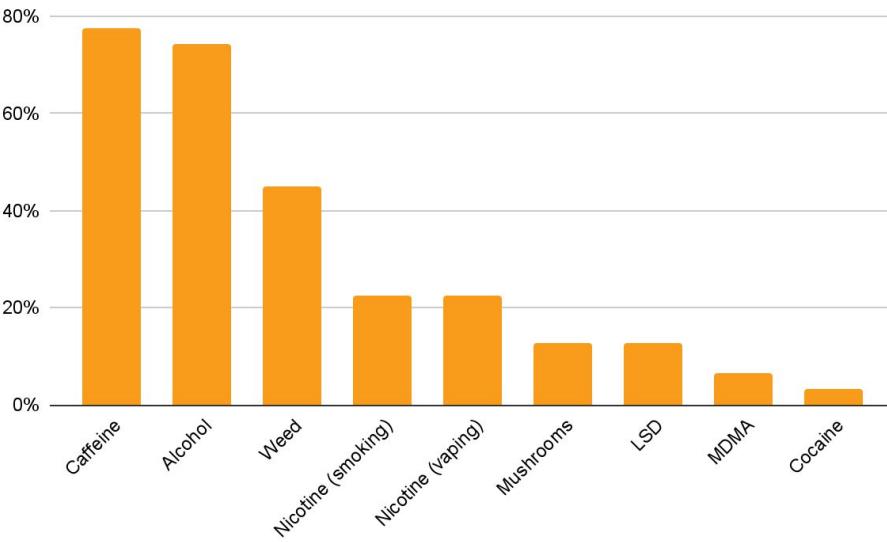
But only 20% has had more than three.



Which drugs have you tried?

Caffeine and alcohol were the most commonly tried drugs.

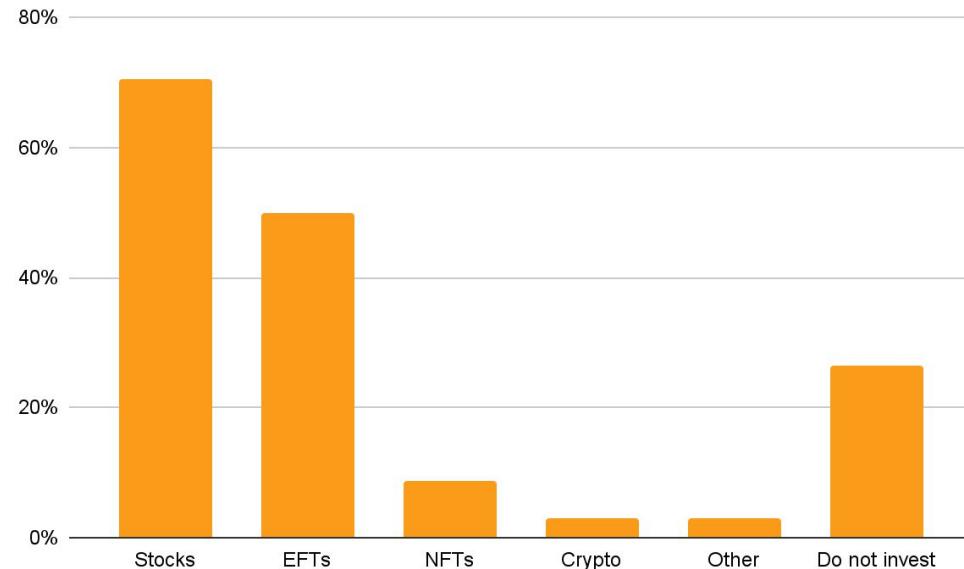
Weed was legalized when we were in second year, which could be a driving factor behind its third place finish.



Do you invest? If yes, how?

We're building our portfolios.

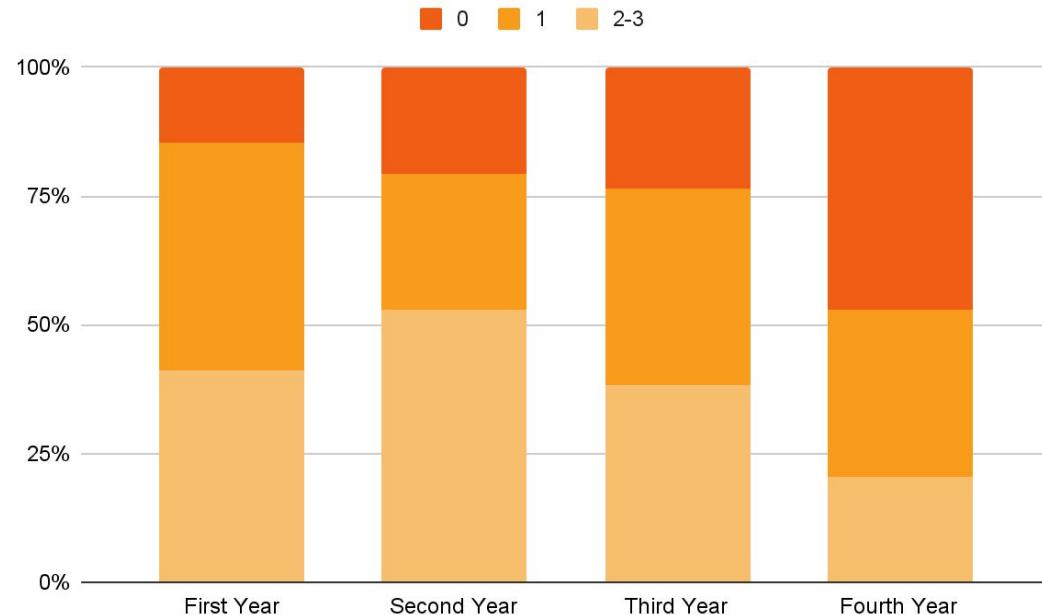
Almost 80% of the class invests, mostly in stocks & EFTs.

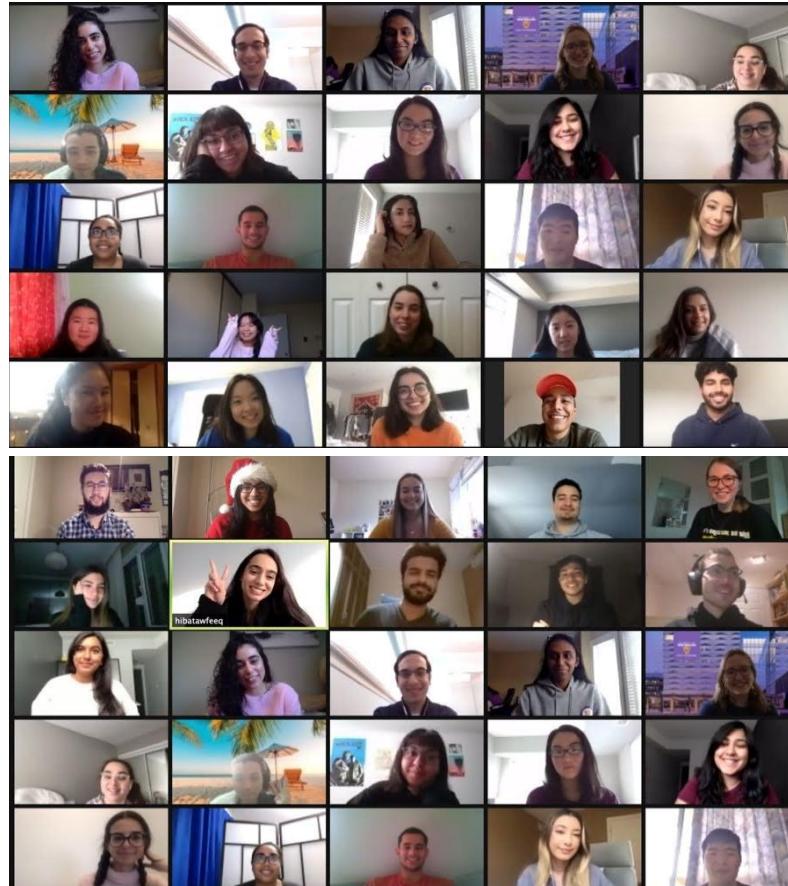


How many extracurriculars did you participate in over the years?

After building our resumes in first and second year, we took a step back.

Most of us were involved in first and second year – with Industry 4.0 and intramurals being huge draws.





Management Engineering 3B, Fall 2020

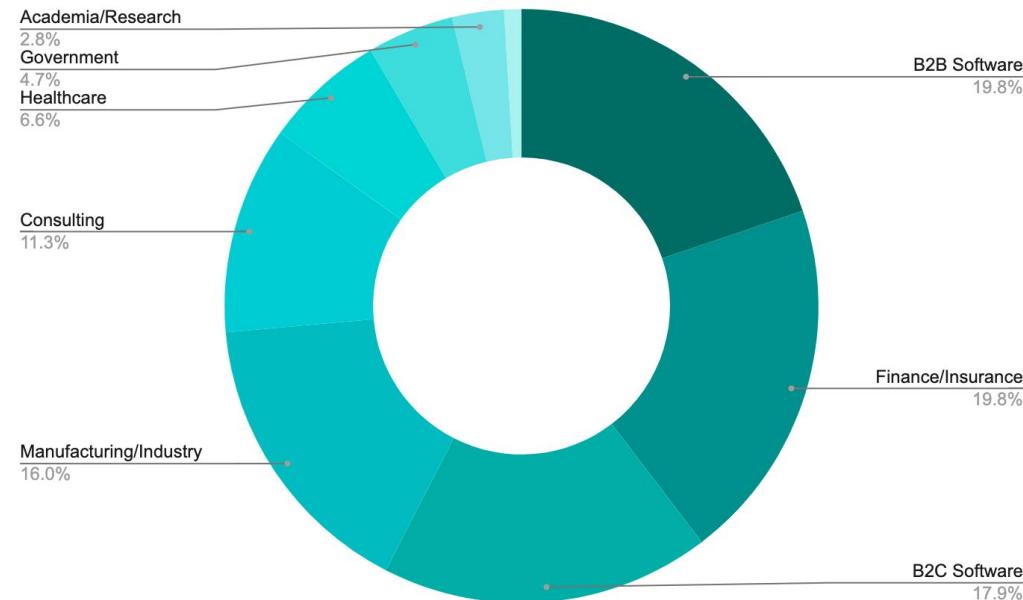
Co-Op

Where did we work?
What jobs did we work?
How much did we get paid?

What industries have you worked in over co-op?

Software & finance were the top industries for MGTE co-ops.

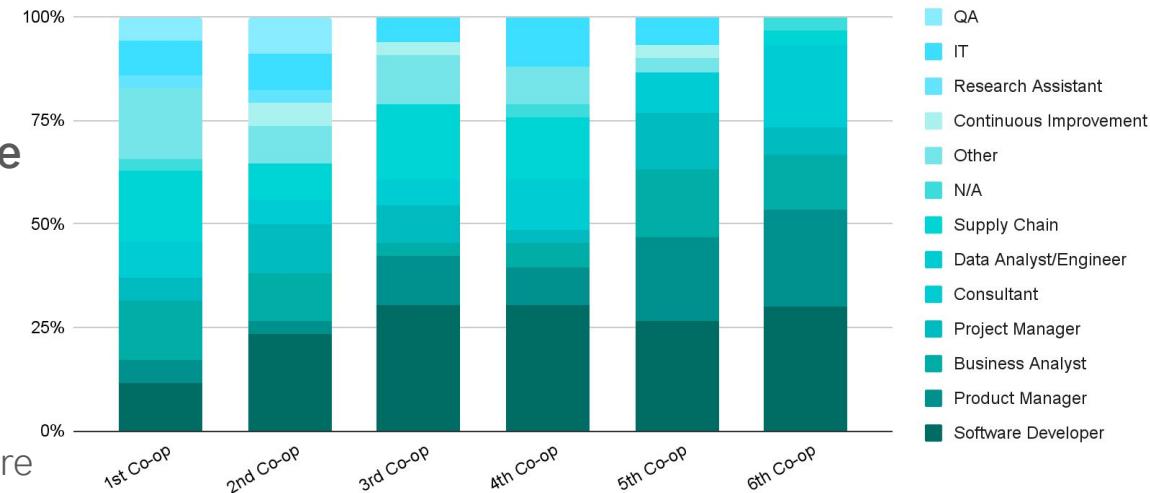
Aligned to the courses we take, these industries along with manufacturing were the most common industries for us to work in. As seen here, management students can work in many industries!



What was your co-op title?

Through the years, our roles developed to be heavily software development & product management.

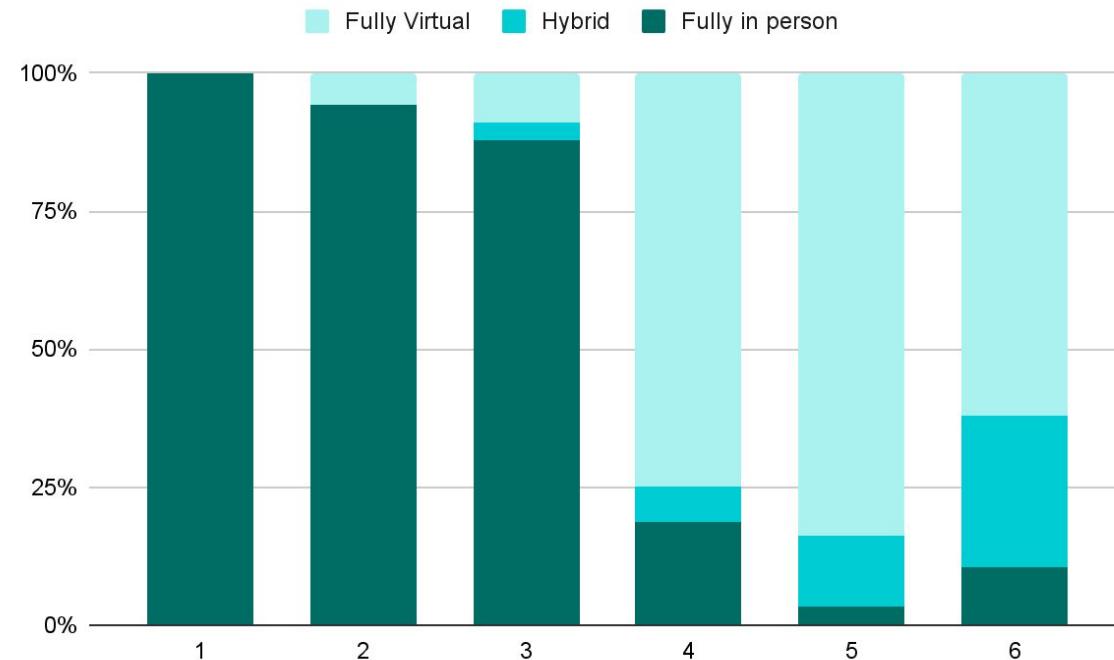
QA & IT roles were more common at the beginning, but helped us develop to be analysts, product managers and software developers. You've gotta start somewhere.



Were your co-op terms in person or online?

Can you tell when COVID hit?

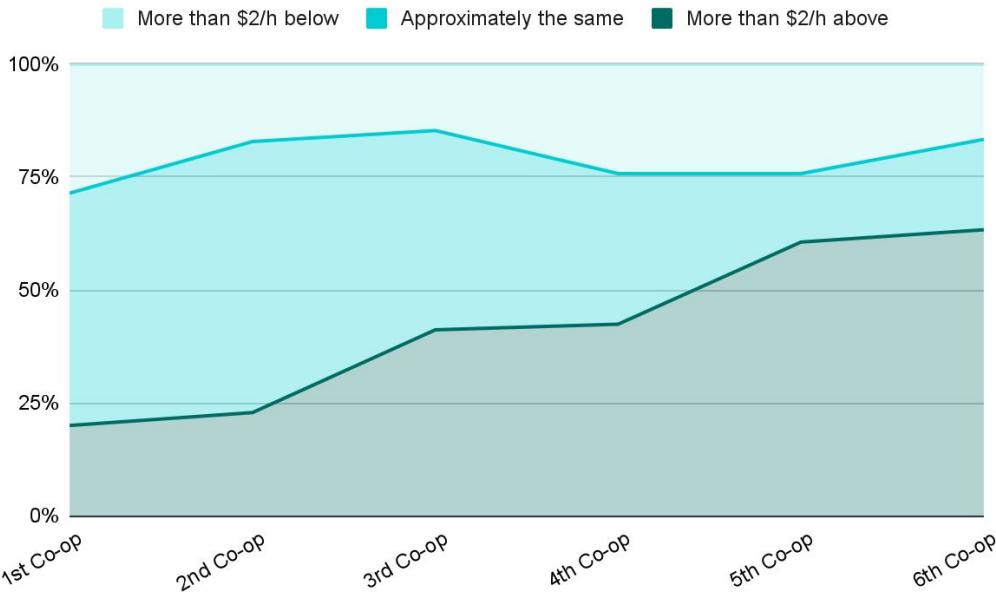
Virtual co-ops were extremely rare before the pandemic, but now the future of work is looking different.



How much did you get paid, compared to the UW Eng average?

80% of the class was making at least \$27.72/hr by their final co-op.

Most of us were at, or above, the engineering average salary!

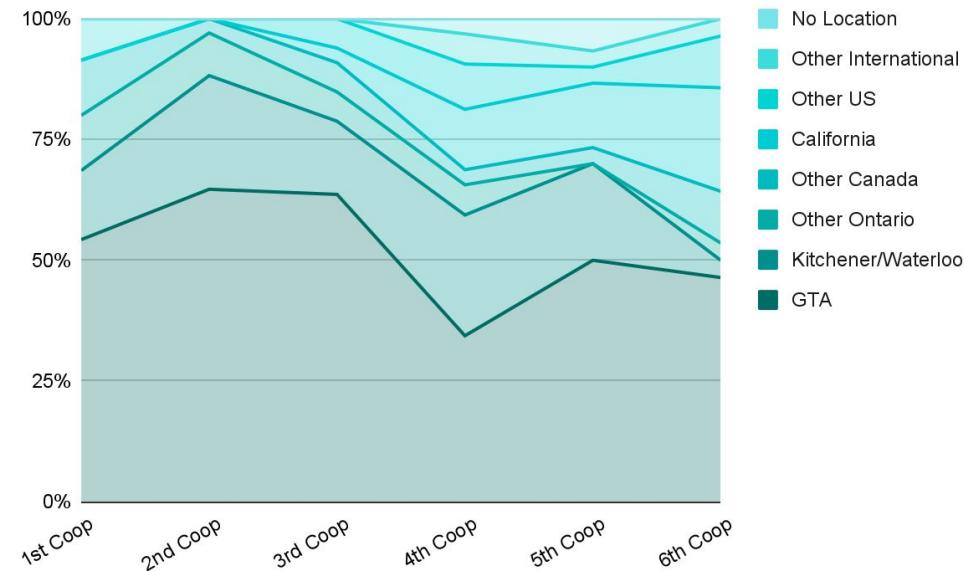


Faculty of Engineering (including Software Engineering)	\$18.35 (average) <small>Low: \$14.00 High: \$28.00</small>	\$20.30 (average) <small>Low: \$14.00 High: \$32.00</small>	\$22.55 (average) <small>Low: \$14.00 High: \$37.00</small>	\$23.95 (average) <small>Low: \$14.00 High: \$38.00</small>	\$25.75 (average) <small>Low: \$14.00 High: \$45.00</small>	\$27.72 (average) <small>Low: \$14.25 High: \$60.00</small>

Where was your job located?

80% of the class worked in Ontario for their first three co-ops.

This decreased to 50% by the last co-op.



What companies did you work for?

Manulife, Loblaw and PepsiCo were the most popular companies in our class.

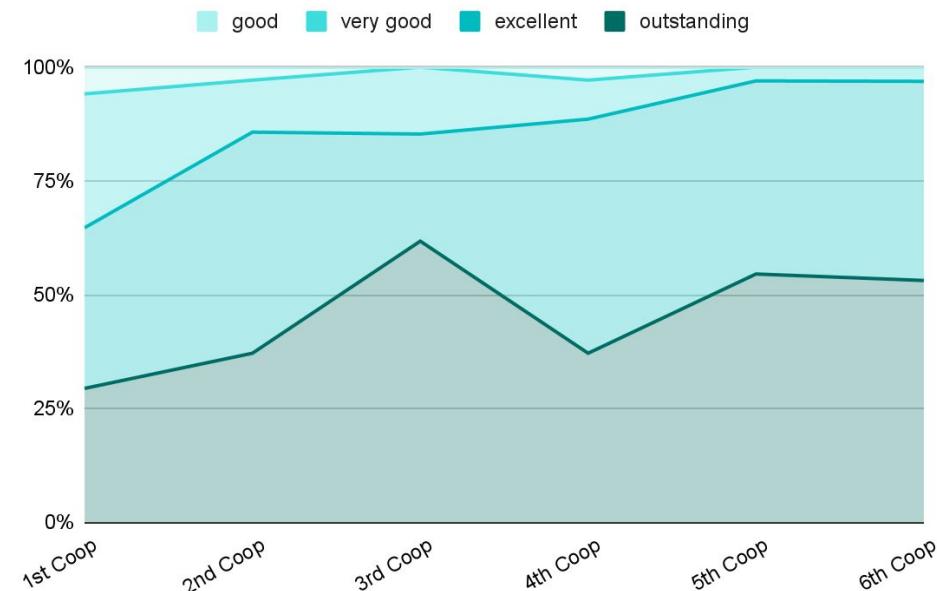
We worked for many companies, but there were many who learned the unique skill set Management Engineers brought, and wanted to hire them back!



And how did they evaluate you?

95% of us were at least excellent according to our last employer.

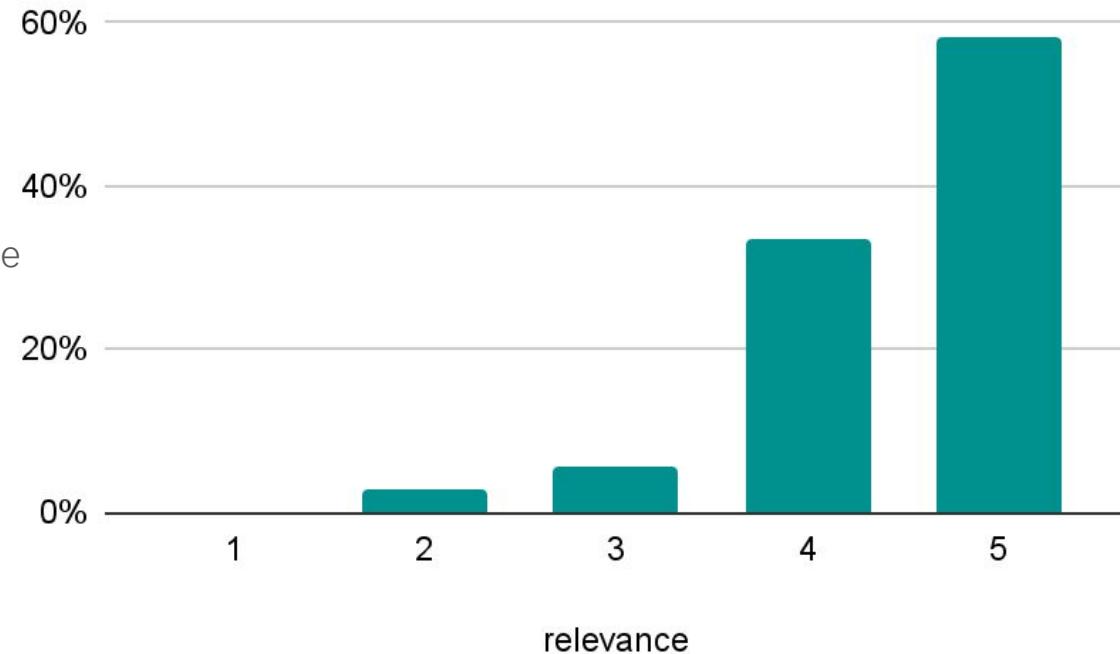
Our co-op evals climbed over the course of our co-op terms!



Did you find your co-ops to be relevant to MGTE?

Our co-ops were extremely relevant to Management!

Almost everyone in the class thought the co-ops were relevant.





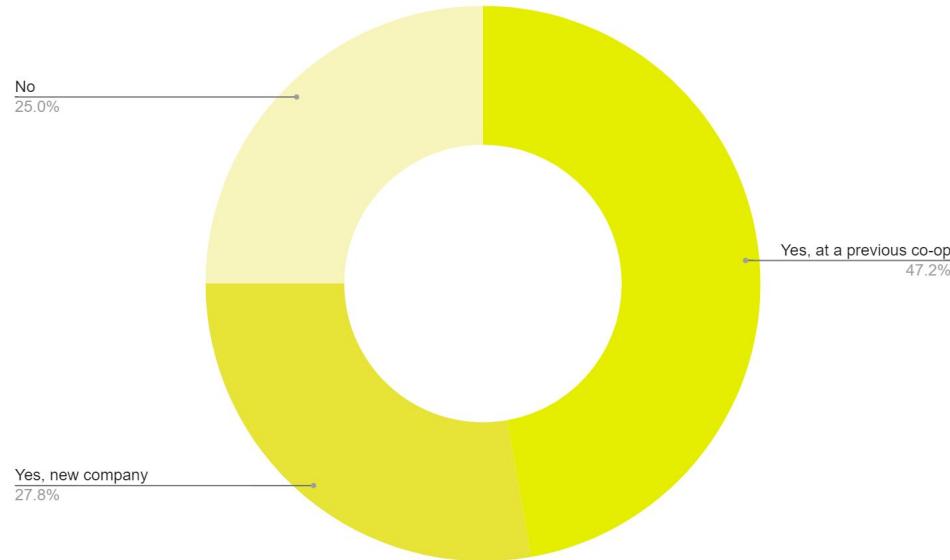
Future

Do we have full-time jobs?
How much are we getting paid?
Where will we be living?

Have you secured a full time job? (as of 6/23/22)

75% of us secured a job soon after graduation.

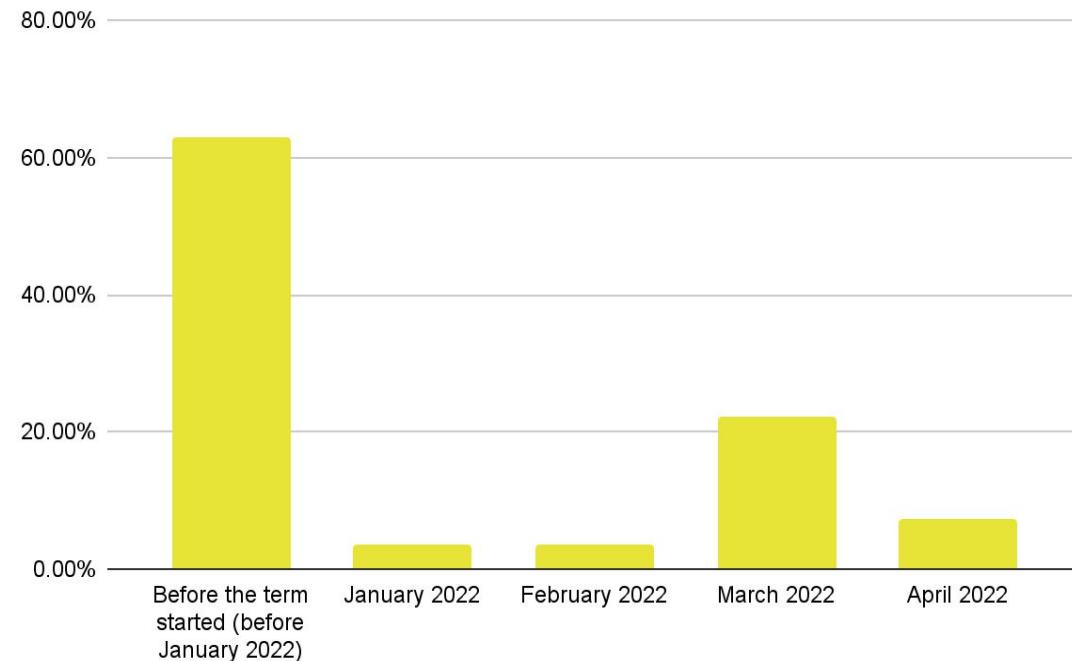
And over half of those jobs were at a previous co-op! UW co-op pulling through.



When did you accept your job offer?

Lots of us had job offers before we started 4B – which was likely driven by our final co-op term.

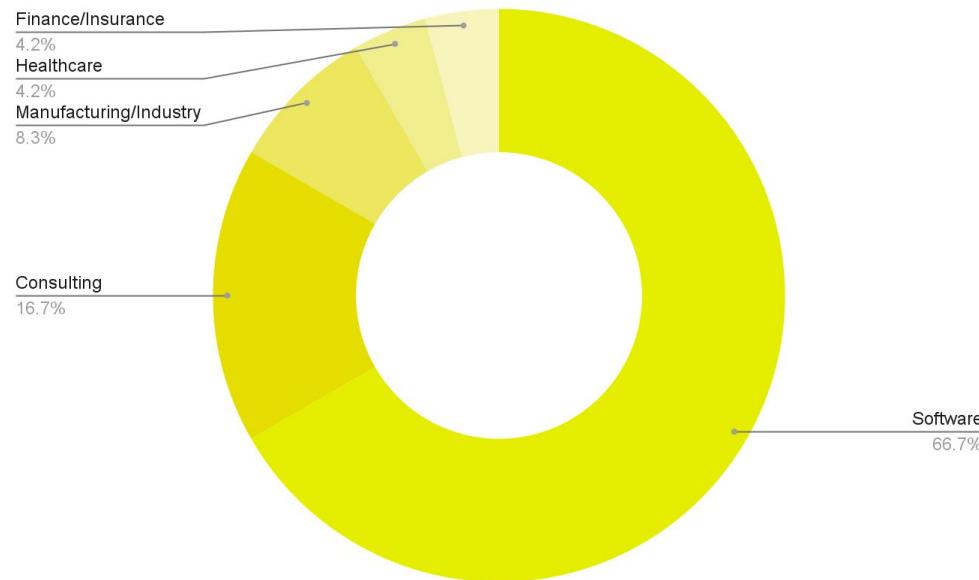
Most of the offers were accepted before we even started our last semester of school. Again, thank you UW co-op.



If you have a job, what industry is it in?

Software remains the most popular industry.

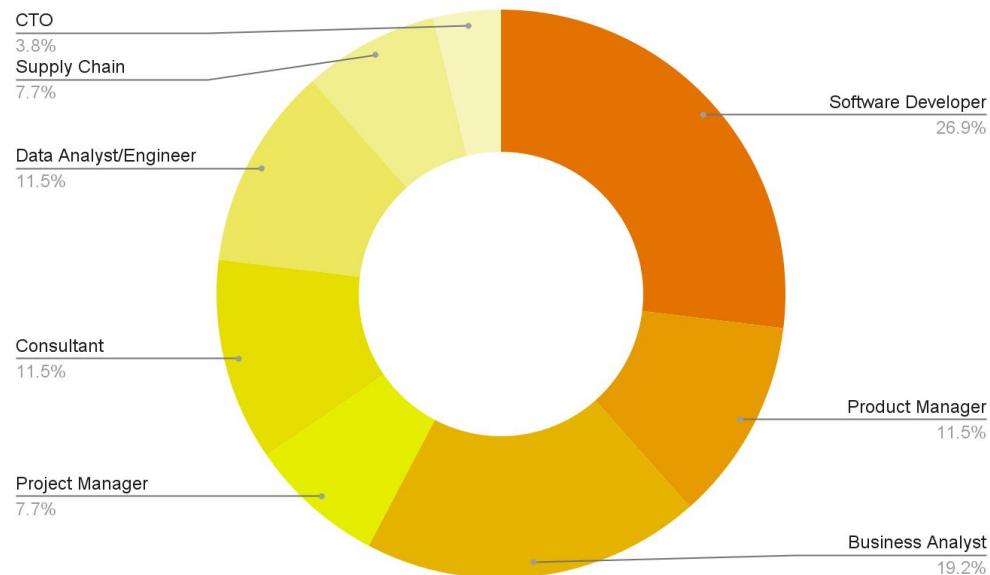
But finance became way less common from co-op to full time.



What is your full time job title?

SDE, PM and Analyst were all common titles for MGTE 22s.

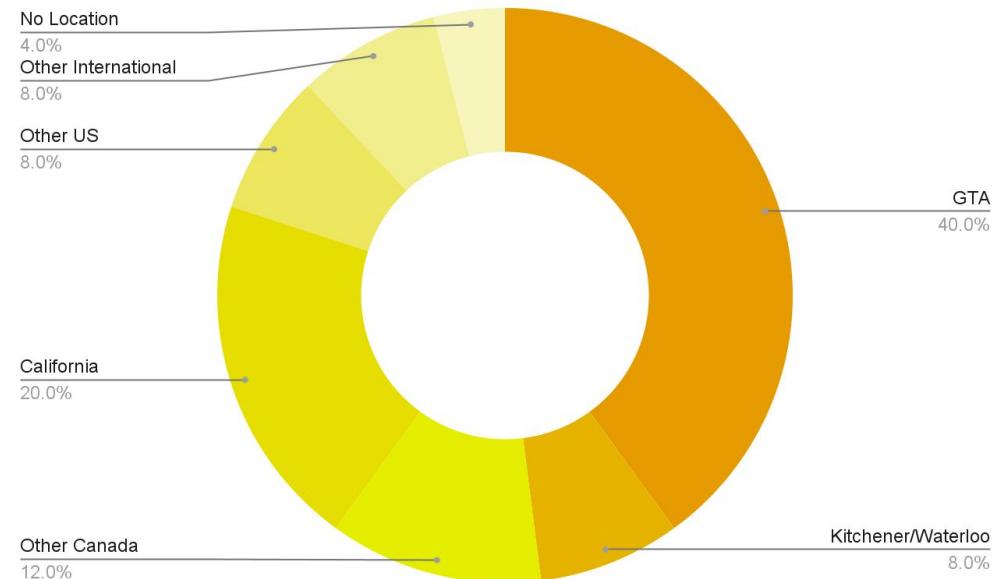
Very similar breakdown to our sixth co-op term titles, which comes as no surprise since many classmates returned to previous co-ops.



Where will you be working after graduation?

Some of us went for “Cali or Bust”, but most opted to stay in Canada.

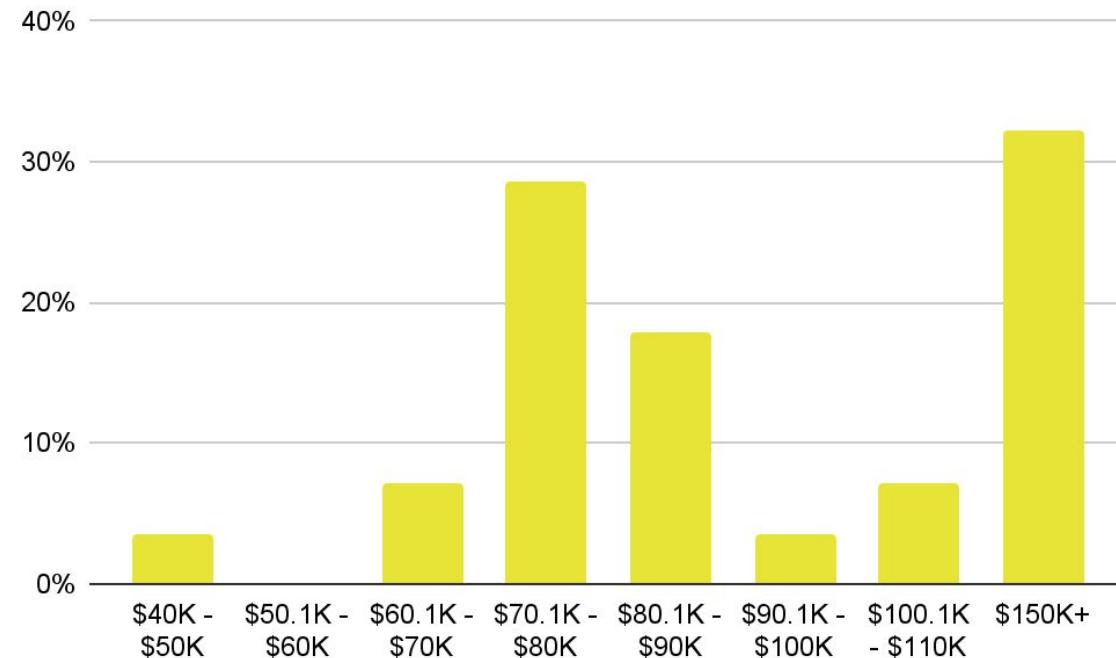
Our classmates in the US will be pocketing lots due to the current exchange rates.



How much is your base salary?

Almost 40% of the class is already making 6 figures.

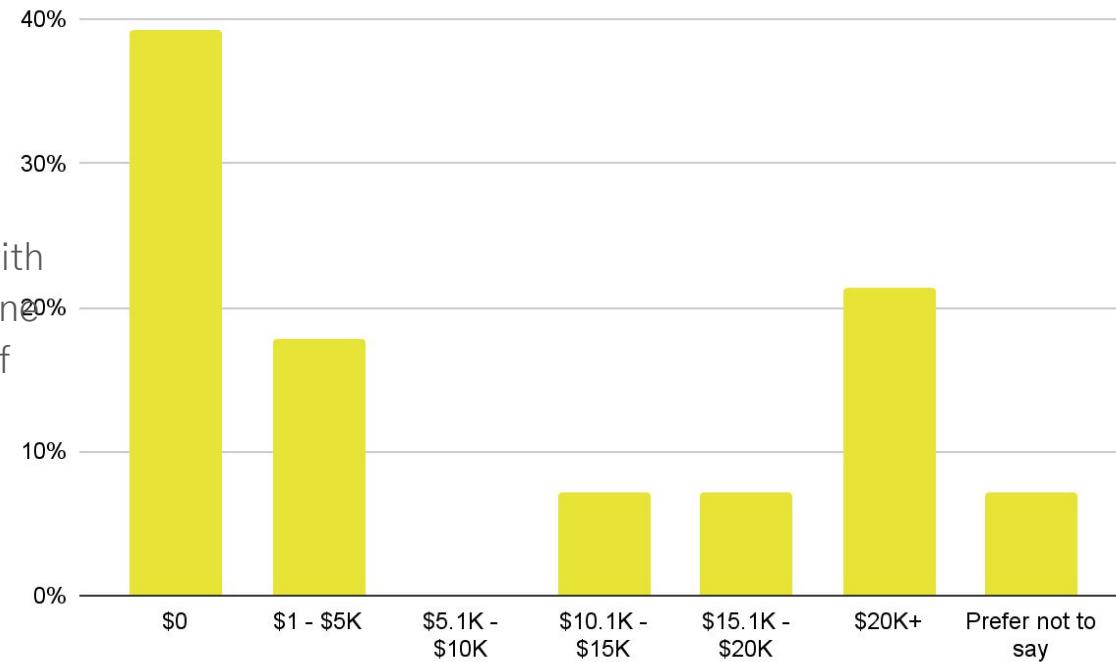
But the \$70k–\$80k is the most common range.



What was your signing bonus?

Some peoples signatures really cost a lot of money!

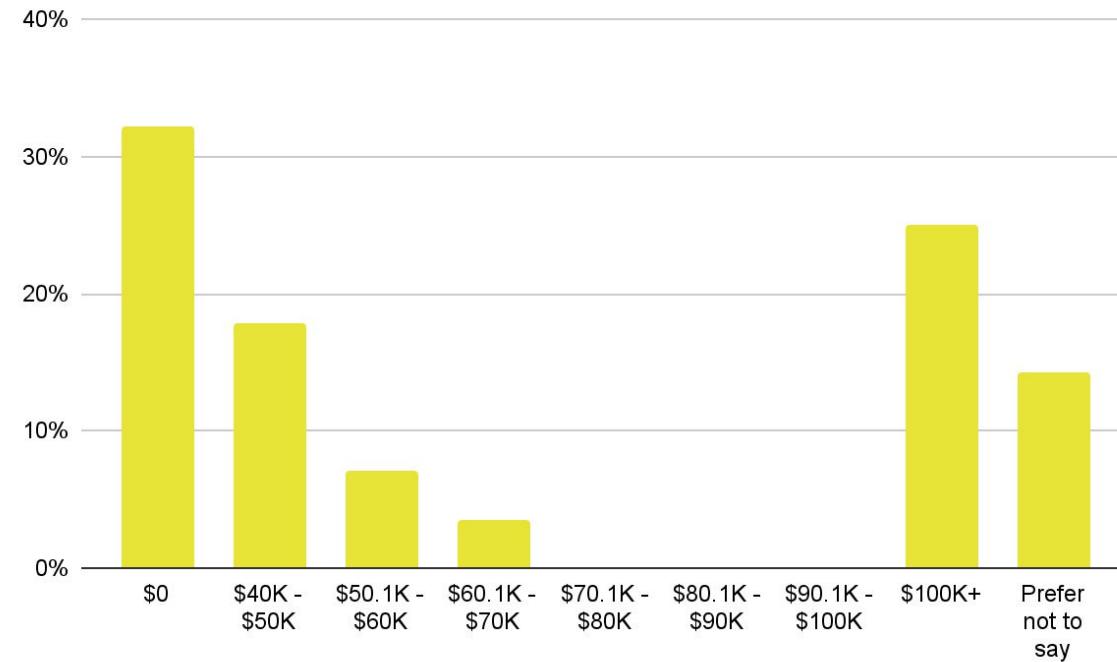
Signing bonuses weren't a guarantee with the full time offer – but those who got one started life after graduation with a bit of cash.

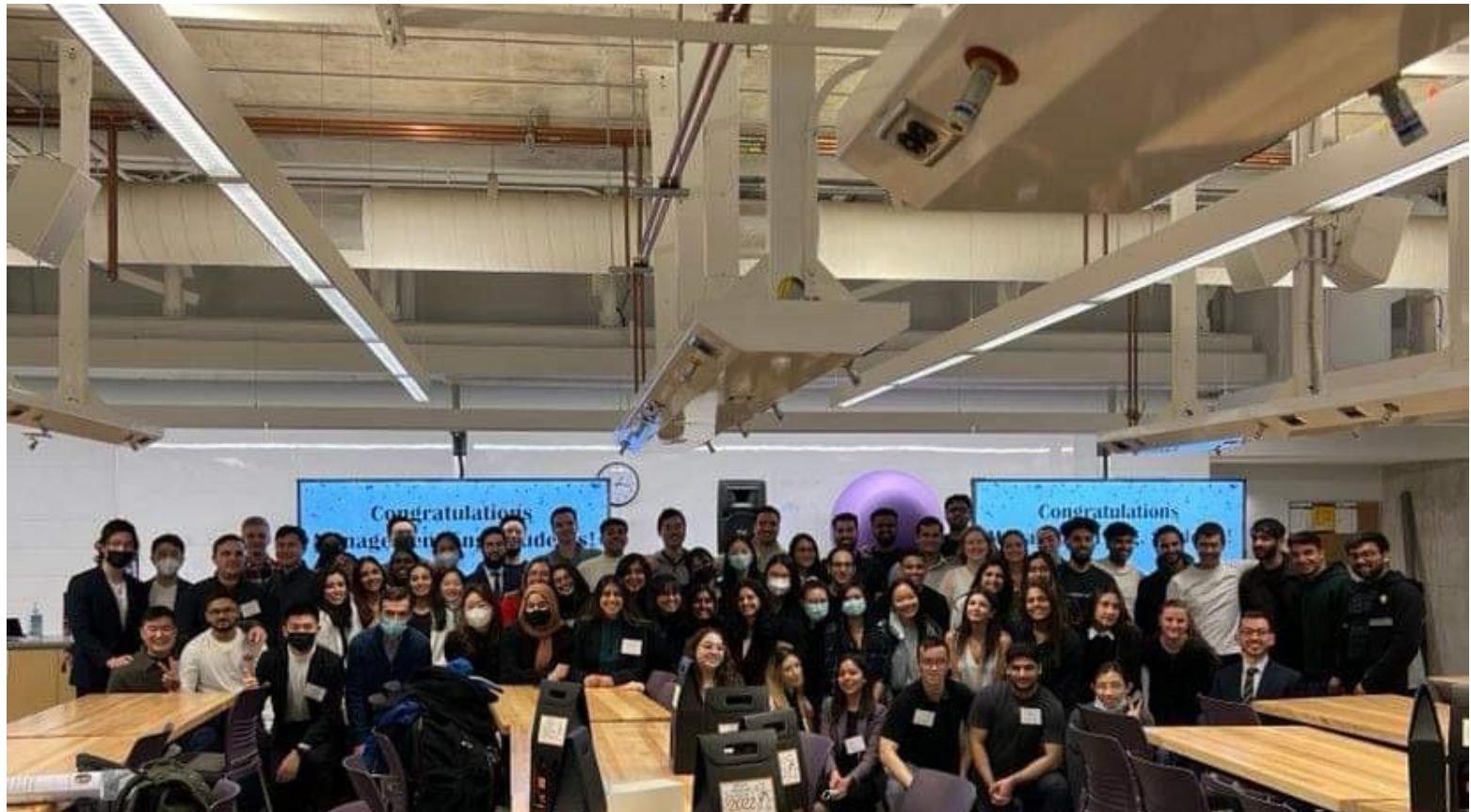


How much were you offered in stocks/equity?

People's portfolios skyrocketed.

Again, while stocks/equity weren't all that common, some people added lots of value to their net worth.





Management Engineering 4B, Winter 2022

So, what is Management Engineering?

“product manager x software engineer”

“Management is a combination between software engineering and industrial engineering”

“Someone who can make a system/decision efficient and effective”

“Management engineering is an emerging discipline concerned with the design, planning, and operation of management systems, comprised of people, materials, information, and technology.”

“Mash of all the best programs with engineering fundamentals woven in at its core.”

“Using industrial engineering concepts to optimize processes”

“Too legit”



“A tight knit family that’s got each other’s back tbh. Will rep MGTE to younger kids”

“The glue of engineering programs at UW. Support the operations of other engineers”

What is one piece of advice you'd give yourself in 1st year?

"Nothing is hectic"

"Go to Dallas"

"Know more people, talk to them, build your connections"

"Try shit now, great time to experiment"

"Grades don't matter as much as you think"

"Don't take anything too seriously"

"Be confident in yourself, be open and willing to talk to other people and be yourself"

"Just don't give up!"

"There are so many cool opportunities, take advantage of them"

"Use your time wisely, enjoy every positive moment in your life, live life to the fullest and be grateful for the people that come in your life!"

"Don't stress about grades too much. Enjoy your time in university, make friends, build meaningful connections and learn as much as you can to become a better, more loving person"

"Don't settle, always seek things you're uncomfortable with"

"Don't compare yourself to others, their achievements don't equate to your failures"

"Enjoy uni while it lasts"



"Work hard play hard and try not to be the jack of all trades, master of none"

THANK YOU

Thank you for reading! If you have any questions, please reach out to us at:

- [Emily Nairn:](mailto:ejnairn@uwaterloo.ca)
ejnairn@uwaterloo.ca
- [Lucas Ungaretti:](mailto:lucasungaretti@gmail.com)
lucasungaretti@gmail.com

A special thanks to:

- Amy Tai
- Anessa Ali
- Peter Bondi

As well, a big thank you to the Class of 2022, our Professors, the Department of Management Sciences & the University of Waterloo!





Management
Engineering
Class of 2022