



GREETINGS, MATHIES!

Hello and welcome to you, first year Math student!

This is **mathNEWS**, the University of Waterloo's bastion of erudite thought, and official newspaper of the Faculty of Mathematics. We've been running since 1973 and publish a new issue every two weeks, usually six issues a term.

An issue of **mathNEWS** is made of a lot of different parts. After the cover is what we call the **mastHEAD**, composed of a blog-style article written by the editors (a.k.a. the one you're reading right now) and a question and answer section with our writers. This time, we've replaced the Q&A with a table of contents – this issue contains a ton of useful advice from **mathNEWS** writers and editors that you'll definitely want to come back to later in the term.

The bulk of the issue is formed from the many articles and pieces of artwork we get from the **mathNEWS** community. This **mathNEWS** Special Edition™ focuses on articles from faculty clubs and other informative articles and first-year anecdotes from our writers. There is still some of the classic **mathNEWS** spirit, which is to say utter chaos. We've got low-effort articles that are derivatives of others, inside jokes, and surrealist comedy. Keep an eye out for a quippy, inline "Editor's note" clarifying things here and there, since some of the articles in this issue were written before we knew what the upcoming term was going to look like. Not in this issue are poems, articles written by profs, **profQUOTES**, research papers, terrible puns, and passive-aggressive complaints about profs and courses.

At the end of the issue we normally have our crossword puzzle, the **gridWORD**, occasionally joined by another puzzle called the **haltingPROBLEM**. On the back there is the **lookAHEAD**, a two week calendar of upcoming events that mathies might be interested in. The publication date of the next **mathNEWS** issue is the highlight, of course.

That about wraps it up. Best of luck with your new university career, try to resist the urge to read **mathNEWS** instead of doing your assignments. I know it's tempting.

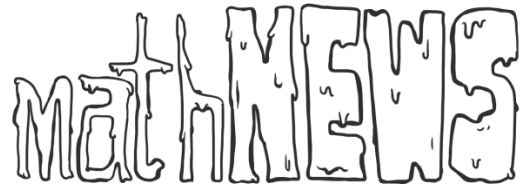
Hope to see you around!

caffeinatED
Editor, **mathNEWS**

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Welcome to Waterloo Math!

NAMAN SOOD, **mathNEWS** EDITOR FOR FALL 2021
ALONG WITH KEVIN TRIEU, CLARA XI AND YANG ZHONG

O-TEAM SEZ

Thank you for (virtually) coming to Orientation! We (the Math O-Team, MODs, and all our Pink Ties) have worked really hard to adapt many of our traditions (and some new events!) to an online format while still making the week awesome for you. We hope you enjoyed all the activities and had the chance to meet your classmates and upper-year students during Waterloo Ready. Even though this year's Orientation was all virtual, you can still get involved in future Orientation(s) and participate in our traditions in-person as an Orientation Leader, or Pink Tie as we call them, when we return on campus. Welcome to the Math family!

Eli, Josué, Kanan, Curtis
2021 Math O-Team

P.S. check Portal for a schedule of all the O-week activities!

N THINGS YOU CAN ASK PEOPLE YOU JUST MET TO GET TO KNOW THEM BETTER

- What program are you from?
- How are you finding Waterloo?
- What's your favourite thing to talk about?
- Ooooh! Tell me more about it!
- That's so cool! How long have you been into that?
- Do you have any tips for if I wanted to get into the scene?
- Oh, I had no idea they had one in Waterloo!
- Can I come with you next time?
- Awesome! Send me a text to remind me? Here's my phone number
- It was really great to meet you! I'll see you at the next mathNEWS prod night uwu

CC

**mathNEWS isn't a cult.
We just lure people in
with free pizza and trap
them in our office. Come
by to get a taste!**

A mathNEWS CULT LEADER EDITOR

MATH ENDOWMENT FUND SEZ

Hey Mathies!

My name is Evelyn, and on behalf of the Math Endowment Fund (MEF)'s Board of Directors, welcome to Waterloo! We hope that despite the circumstances, you will have an enriching and enjoyable orientation and first year.

WHAT DOES MEF DO?

MEF is an \$9 million fund working to enrich the experiences of Math undergrads at Waterloo. Throughout your time at Waterloo, you may notice our logo everywhere, from hackathons, to club events, to design teams; in fact, MEF's logo is probably on your Orientation kit. This is because MEF allocates hundreds of thousands of dollars each year to sponsor and support student-led initiatives.

TYPES OF FUNDING AVAILABLE

MEF allocates two major types of funding: Group funding and Professional Development Funding (PDF). Group funding is used towards initiatives involving multiple Math students, such as sponsoring conferences (ASNA, Grace Hopper, etc.), design teams (Midnight Sun, VEX U Robotics, etc.), and student clubs and societies (MathSoc, UW Finance Association, etc.). PDFs are for individual initiatives; if you would like to attend an event, publish a paper, or take extra-curricular courses online, PDF can reimburse part or all the cost.

HOW TO GET INVOLVED?

The easiest and best way to get involved is to join the Funding Council. You will have a direct say in how MEF allocates its money each term; you will also get free food and learn about the different extracurricular opportunities for Math undergrads.

After Council, there is an opportunity to join the MEF Board of Directors; the BoD is a multi-term commitment that sets MEF's long-term strategic direction. After BoD, there is an opportunity to be elected as the Executive Director, where you oversee MEF's operations for a term.

Please visit MEF's website (mef.uwaterloo.ca) to view details on funding and how to get involved. Please feel free to email me if you have any questions or concerns (mefcom@uwaterloo.ca)!

Evelyn Gu
MEF Executive Director (Spring 2021)

MATHSOC SEZ

Congratulations to all our students starting their first year at UWaterloo! Starting university is hard, scary and oftentimes lonely. But please know we are here to help and that there are a lot of first years and upper years who are excited to get to know you! You are all going to grow and learn a lot over the next 4–5 years, and we want to help you make them the best years they can be!

WHAT IS MATHSOC?

The Mathematics Society, affectionately termed MathSoc, is a student-government group that exists to enrich the experience of undergraduate students studying mathematics at the University of Waterloo. We want to improve your student experience with exciting events and contests. We want to provide you with opportunities to improve your skills and network through our clubs. We want to advocate for the problems you encounter as a Math student at the University. MathSoc is your student society and we want to help make your time at the University as amazing as it can be!

WHO IS MATHSOC?

As an undergraduate mathematics student at the University of Waterloo, you are automatically a MathSoc member! If you pay your MathSoc fee, you are considered a full voting MathSoc member. If you don't, you are considered an associated member and still have full access to MathSoc's advocacy services. Thus, you is MathSoc.

WHERE IS MATHSOC?

MathSoc is located on what I like to call the fun floor (third floor) of the Mathematics & Computer Building. Here sits:

- The MathSoc Office (MC 3038), where you can buy novelties like math socks, rent board games and textbooks, get free candy, and more
- The MathSoc exec office right across the hallway, where you can speak with our executives
- Our Coffee and Donut Shop (CnD), where you can buy delicious food for reasonable prices (unfortunately it is temporarily closed but we hope to open soon once it is safe and feasible to do so!)
- The MC Comfy, a lounge for students to work on assignments, chat with their friends, or just wait for their next class
- Most of our club offices, where you can find out more about clubs or just hang out

I'LL DO YOU ONE BETTER: WHY IS MATHSOC?

MathSoc lore is diverse and difficult to traverse. It exists largely in the memory of executives and councilors past. Sometimes, you may come across a relic that contains more questions than answers. Here is a partial history of the infamous adventures of MathSoc's Natural Log (currently in

a very secure facility): spiritofwtf.com/tagged/The%20Natural%20Log.

I, like you, am still looking for more information about the ancient beings that created MathSoc and powered our very first pink tie...

HOW CAN YOU GET INVOLVED IN MATHSOC?

We have a variety of volunteer opportunities! If you are interested in student governance, you can join our Council or Board! There are usually 4–5 first year representative seats on Council, so look out for the election at the beginning of the term! Aside from that you can volunteer to help maintain our website, organize events, advertise events, manage our office, maintain our finances, and much more! Check out mathsoc.uwaterloo.ca/volunteer-at-mathsoc for all the details!

CONTACT US

You can find a lot of information on our website at mathsoc.uwaterloo.ca. You can direct general inquiries to info@mathsoc.uwaterloo.ca. We are also happy to answer your questions on Facebook (facebook.com/mathsoc) or Instagram (instagram.com/uwmathsoc). If you have more specific questions, you can contact the following individuals:

President (president@mathsoc.uwaterloo.ca) — For:

- Questions regarding MathSoc clubs and external organizations, or about MathSoc itself

Vice President Academic (vpa@mathsoc.uwaterloo.ca)

- Academic and co-op-related questions, concerns, and feedback
- Suggestions for exam bank, textbook library, and academic events

Vice President Operations (vpo@mathsoc.uwaterloo.ca)

- Questions and feedback regarding the MathSoc office and the services we provide

Vice President Finance (vpf@mathsoc.uwaterloo.ca)

- Questions about refunds, cheque reimbursements and club budgets

Vice President Internal (vp@mathsoc.uwaterloo.ca)

- Questions and feedback regarding MathSoc events
- Marketing requests (i.e. poster approval)

We're looking forward to making this a great term for all of you! We hope you learn lots, meet lots of amazing people and have a lot of exciting experiences!

Harleen Bhandal (President)
and the Spring 2021 MathSoc Exec Team

WUSA SEZ

Welcome to the Waterloo Undergraduate Student Association (WUSA)!

We're your friendly neighbourhood student union, a not-for-profit, student-run organization dedicated to advocating for and supporting the needs of undergraduate students here at Waterloo. You can call us WUSA (pronounced WOO-SA) for short!

NEAT! BUT LIKE. WHAT DO YOU DO?

We represent and amplify the student voice on matters like affordable & high-quality education, equitable access, and student safety & wellness. Our advocacy is directed to decision-makers across the University and all levels of government to improve the student experience.

COOL, DO YOU RUN CLUBS TOO?

Sure do! WUSA supports student life across campus (and online!), including special events (like Orientation and Welcome Week), student-run services (like the Glow Centre and the International and Canadian Student Network), and all of the 250+ student-led clubs. Any undergraduate student can start or join a club!

I'M LOOKING FOR VOLUNTEER EXPERIENCE. GOT ANYTHING FOR ME?

We've got SO MUCH for you. You can volunteer at any of our student-run services, through Orientation or other special events, and loads of other student life initiatives this year.

We're student-run, so there's plenty of opportunities for students to get involved in calling the shots. You could run to be a student representative on Students' Council or within a Faculty Society, join any of our committees as an at-large student, or even run to be an Executive of WUSA!

WHAT ABOUT PAID JOBS?

We've got your back there too, whether it's for co-op or a side gig while studying. WUSA's got full-time and part-time positions available all through the year in a bunch of different areas — marketing, advocacy, campus life, food & retail, and more!

I'M SOLD. WHERE CAN I LEARN MORE?

Wow, glad you're so ready to jump right in and definitely aren't made-up dialogue by the person writing this WUSA Sez!

Everything you could possibly want to know (and more, but also maybe less) is held up high for the world to see at wusa.ca. If you have any unanswered buzzing questions, feel free to email them to reception@wusa.ca! We also have social media: @yourwusa. I think we post memes sometimes?

Gosh, I've missed writing for **mathNEWS**.

Catherine Dong (she/they)
Vice President, Student Life

P.S. Unfortunately, the goose egg shipment wasn't able to go out with the WUSA Boxes. (Canada Post said no.) They'll be available for pickup across campus, but they may be a bit more unwieldy than when they first arrived.

MATH MAJORS AS THEIR ACRONYMS

Actuarial Science — shortened to ActSci

Applied Mathematics — AMath or AM

Combinatorics & Optimization — CnO/C&O or just CO

Computing and Financial Management — CFM

Computational Math — CM, or Comp Math

Computer Science — CS

Business Administration and Computer Science Double Degree — CS/BBA

Data Science — DS, I don't think anyone says this

Financial Analysis and Risk Management — FARM

Business Administration and Mathematics Double Degree — Math/BBA

Mathematics/Business Administration — Math/Bus, orally, "Math Biz"

Mathematics/Chartered Professional Accountancy — CPA or Math/CPA

Mathematical Finance — Math Finance

Mathematical Physics — Math/Phys

Mathematical Studies — Math Studies

Mathematics/Teaching — Math/Teaching or Teaching

Pure Mathematics — PMath or PM

Statistics — shortened to Stats

Undeclared/Honours Math — "Math"

USE A CALENDAR

There is a certain kind of person for which the advice in this article will be completely unsurprising. They will look at this and say, “What? This guy only figured this out now?” If you read this and think that, then this article might not be for you. There's a bunch of other amazing articles in this issue. The one directly above this one is definitely worth your time.

But if you're like me, read on. This might be helpful.

In high school, there is a sort of osmosis by which you keep track of important dates like assignments and tests. Teachers will bring them up during class, your friends will discuss them with you, and since you're probably sharing almost all of your classes, even in higher grades, they'll be discussing the same tests you're taking.

Even in the first year of university, this sort of holds up. There are core courses every first year takes, and if you go to all your lectures like a good student, the profs will usually mention midterms and what have you.

However, the years wear on, and soon you find yourself taking a political science course that you don't know anyone in, and you haven't been to a lecture in weeks, and surprise, the one week you decide to check in and see what's up, they're holding a whole-ass midterm that you haven't studied for, because you didn't know it existed.

The title might have clued you in to what I'm about to recommend. Use a calendar.

When you start the term, and all the course websites are active, go through each one, open the course schedule in one window, and open Google Calendar in another window. Do that thing where you can split your monitor into two windows and just copy everything over. I mean everything. Even those five-second discussion “responses” you have to do.

Again, if you're like me, this will sound like an outrageous expenditure of time. Spending an hour and a half on clerical work? When there are YouTube videos you could be watching? (let's be real, it's probably rewatching.) Do it anyway. I started this practice during lockdown and it literally changed my life.

First, the obvious benefit: you know when things are! Yes, in first year, most math courses boil down to “hand in assignment before Tuesday night,” but there are still midterms and electives to contend with, and weird one-off date changes when the gamers occasionally rise up on Piazza. Even better, your calendar lets you know when *everything* is, all in one place. This lets you plan out what to work on next without clicking through all five of your course pages, all of which, of course, store information on due dates in a different place.

However, there is a more subtle advantage. It gets easier to trick yourself into doing things. When you create your assignments on Google Calendar¹, make sure to set them as tasks, not events. Why? Tasks have this big “Mark Completed”

button that checks off the task and crosses it out. This triggers that primordial part of your brain that responds innately to checkmarks, giving you great pleasure when finishing tasks. Going to your calendar to check them off also exposes you to upcoming tasks, so you have no excuse for not doing them.

You might be thinking after reading that, “Sounds like a good idea, but I've never missed anything important before, so I don't need to do this.” That's what I said, too. The fact is, if you're at Waterloo, you're probably pretty good at school. This lets you paper over all kinds of things with brute force. If you don't really need to study, it's okay if you're surprised by a test the day you have it.

But, this is like fixing a leak in your boat by getting rid of the excess water *really* fast. It doesn't matter how fast you are, the boat is eventually going to sink. Just plug the leak now. Use a calendar.

UW Unprint

1. If you don't use Google Calendar you're going to have to translate this advice into your calendar of choice. The key part to carry over is the checkbox.

LOOKING STUPID

Looking stupid and being stupid are two very different things, and two things that I became conscientious of since coming to Waterloo.

If you're scared of looking stupid, then...

- you're not stupid,
- you probably should do it,
- do it, unless you're gonna hurt you or someone else directly,
- whoever you're scared to look stupid in front of will be grateful that you stepped up,
- someone else could have been in the same position as you and will follow suit now that you did it first,
- this person might thank or compliment you on being brave or on doing a great job at what you did,
- later, if you do regret doing it, you won't regret *not* doing it.

Raise your hand in class when you get confused, ask that person if they want to hang out, belt your heart out at a karaoke mic, go work out at the gym, join the salsa dancing club even if you have two left feet. Literally no one will make fun of you. So many people will support you, so long as you're doing it for the right reasons.

Deriving for Dick

THEN LET ME CHOP MY FINGER

After much thinking, I've decided that the best way to make a first impression is to share something personal, embarrassing, and potentially not relatable. I promise I'll be funnier next time.

I recently spent five days in Whistler, BC with three close friends. When not ziplining or rafting or playing Smash, we made our own meals, took care of the house we stayed in, and generally strived to be functional young adults.

Two of my friends (who, for the sake of privacy, are conveniently named Alfa and Bravo) found this easy, as they both cooked regularly and took on much responsibility at home. On the other hand, my third friend (very conveniently named Charlie) and I were fortunate enough to have parents who were happy to do most of the housework themselves. As a result, we were happy to let the other two prepare our meals. The food would taste better for everyone this way.

However, one night, Charlie and I decided to make mac and cheese. Dinner would be delicious at best and edible at worst, we thought. We followed the instructions on the box until it came time to add milk. Rather than using a measuring cup, we decided to eyeball it. Instantly, the cheese became thinner than water. Chaos ensued.

Alfa entered the kitchen. "You're eighteen," he said jokingly, positioning himself in front of the stove. "How do you fuck up mac and cheese?"

Similar remarks were shared all night, and I began to fixate on something I had suspected for a very long time: I was an overgrown child. I happily spent all day in my bubble of pleasure and music and big ideas but was unable to handle simple real world responsibilities. I felt gross. *What's the point of being good at anything if you're not a functional person?* I thought.

I eventually snapped. "Dude, it's literally mac and cheese," I told Alfa, unaware that it was about a bit more than mac and cheese. "How else are we gonna learn without fucking it up?"

Alfa turned around. "There are some things in life that you can't learn through mistakes," he said calmly. "Like, if you're cutting an onion and I notice you're not holding your knife properly, as your friend, do I just stand there and watch?"

You're my friend, not my fucking father, I thought. I looked him in the eyes and said:

"Then let me chop my finger."



Things got worse, then they got better. We talked things through and apologized to each other later that evening. I'm glad that mac and cheese didn't cost me my friends. But it

wasn't long after that I realized that I had said something incredibly stupid.

First: I'd bet that the only people willing to lose a finger have never lost a finger. It's supposed to be painful. Unknowably so.

Second: knives aren't required to make mac and cheese. No mistake I could have made that night would have actually cost me my finger.

But that image—the idea of making mistakes that hurt more than they teach—persists, especially as I leave home and start a new life at Waterloo. Older folks have often told me to make plenty of mistakes while I'm still young because they're the only way to learn. And I used to believe that wholeheartedly: for the most part, I'd be unafraid to take risks and try new things.

But you don't look forward to chopping your finger off—that would make you a masochist. And once it happens, you don't think about what you can learn from it—you're only left imagining your life if you were a bit more careful. By leaving home, I'm rolling down my steel gloves, inch by inch.

Older students would give advice right about now. I'm not an older student, so I don't have answers. But I'd like to believe that coming to terms with the risk of severing my finger is what it means to grow up. As I slowly learn to cook, clean, make new friends, manage my physical and mental health, and become financially independent, maybe I'll become comfortable with the tightrope of life. Maybe it's not as much of a tightrope as Alfa would have me believe. Maybe we're both still eighteen.

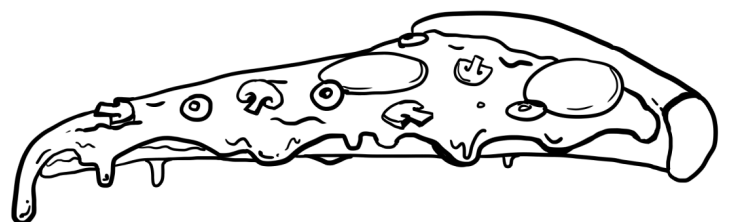
The bottom line: if there's one thing I'm looking forward to over the next five years, it's growing up. I'm ready to leave home.



How was the mac and cheese, you ask?

In a last-minute attempt to salvage the watery cheese, I grated some extra cheddar into the pot. And I don't eat mac and cheese often, but holy shit did it help me forget about knives and fingers and being a no-good child. It was the single greatest bowl of mac and cheese I had ever eaten.

χ



USEFUL LINKS I MANAGED TO FIND IN WATERLOO'S BYZANTINE WEBSITES

If you're like me, you might have been lulled into a false sense of security with the illusion that is the Waterloo website directory. At first, I was so confident as an incoming frosh that I was arriving into safe hands with plenty of resources, a great user interface, and the loveliest colours in the design (for real, the math faculty pink is sensual). However, if you're like me, you've also soon come to realize that *holy shit how does anyone navigate this?* The websites give the appearance of being easy to navigate, but good luck finding that one page you saw in April that provides you with exactly the information you're looking for if you don't have it bookmarked (I have 67 pages bookmarked at the moment).

While I am sure that fourth years achieve the level of mastery required to confidently peruse these sites, we don't have that kind of luxury. Luckily for you, I spend a lot of time online, and I've compiled this list of really useful, first year friendly stuff that I've found deep in the Waterloo directories (as well as other miscellaneous items).

Full disclosure: no one really told me if this issue of **mathNEWS** will be physically printed. Wouldn't it be funny if you were holding a paper copy of this article and here I am giving you links to look at..! Honestly, if that's the case, just skip this article—save me the embarrassment. Or go to <https://mathnews.uwaterloo.ca/> (the only link that actually matters in this article) to access this issue online.

Otherwise, without further ado...

- <https://lib.uwaterloo.ca/web/assignment-planner>

If you're worried about time management, let Waterloo do the work for you! This literally plans assignments for you. I love how it starts planning from the current day and only gives you a few days for each step so you immediately get that rush of anxiety that a deadline is coming up.

- <https://athletics.uwaterloo.ca/sports/2020/5/5/physical-activity-and-nutrition.aspx>

This one's for people who don't like to exercise but feel like they *need to*. I honestly can't give you any more details because if I had looked farther than the heading I'd be too emotionally obligated to do ...*physical activity*... and make my body unpleasantly moist with all that sweat stuff.

- <https://uwaterloo.ca/food-services/nutrition-0/kitchen-and-grocery-resources#Kitchen>

Check this out if you don't want to sustain yourself purely on Dairy Queen and McDonald's come fall.

- <https://uwaterloo.ca/food-services/nutrition-0/recipes>

This is for people who are going to do the cleaning and leave their future partner to do the cooking.

- The 2026 Waterloo Discords

There's two servers available for first year math students. Kool kidz only. Kidding. If you're not already in them, imagine Piazza but it's mostly memes. I'll leave finding the links to you! DM someone. Or maybe Google knows. Unlikely.

- <https://www.facebook.com/>

Now, this one's not part of the Waterloo database, and to be honest it's kind of a sketchy site; not many people have heard of it. Be careful of scammers and your racist uncle. But in terms of finding out how to contact clubs, this is your best bet. Trust me.

- <https://www.facebook.com/mathsoc/>

I'm assuming that **mathNEWS** readers are, well, math students. This is kind of our niche.

- <https://wusa.ca/clubs-services>

Good place to search for clubs—you know, if you're unsure of what kind of person you want to be in university.

- <https://uwaterloo.ca/library/research-supports/academic-integrity/academic-integrity-tutorial/check-your-understanding>

Do this quick tutorial if you want the university to place a shred of trust in you. Hint—always pick C.

- <https://uwaterloo.ca/watcard/get-my-watcard>

Watcard for you! And a Watcard for you! And you get a Watcard!

- <https://contensis.uwaterloo.ca/sites/open/resources/GettingReadyToLearnOnline/table-of-contents.aspx>

This looks like an online course for how to learn online for online courses before online courses became online *online* courses and in-person courses became online *in-person* courses. Good luck.

- <https://uwaterloo.ca/student-success/academic-development>

Bless the pure souls at the Student Success Office (SSO) who think about our oncoming suffering.

- <https://uwaterloo.ca/student-success/resources>

For the acute minds that noticed this link is actually the first link on the page from the previous link—yes, okay, you got me, congratulations, but also this page deserved its own spot. Who knew that I read a page an hour because I suffer from “faulty eye movements”? Not me. Point is: read this, I swear it might have a chance of helping you (understand how royally *fucked* you are for the next four academic years).

- <https://uwaterloo.ca/writing-and-communication-centre/waterloo-ready-write>

Just like the SSO, the Writing and Communication Centre (WCC) is available to make sure you don't slack off during those hard times ahead.

- <https://uwaterloo.ca/writing-and-communication-centre/pj-friendly-writing-groups-undergrads-0>

Doesn't this take you back to your childhood? Something about being in your PJ's in front of other people is just so exciting! These groups will start in the first few weeks of September, so keep an eye out.

And that's all folks! You're now ready to navigate the confusing labyrinth of Waterloo's websites all by yourself. All that remains is to navigate through MC. Good luck, soldier on.

A cool pen name

NOT SO “STRAIGHT AND NARROW”?

Hey mathies (and anyone else fortunate enough to be reading this awesome publication)! If you are gay, lesbian, bisexual, transsexual, pansexual, queer, questioning, or stray in any other way from the “straight and narrow” path of cisgender heterosexuality, you are not alone! The Glow Centre For Sexual and Gender Diversity, located on campus at the Student Life Centre, room 2102, is a safe space where you can meet similar people and/or seek support. Glow offers discussion groups, social events (including an annual trip to Pride Toronto), awareness campaigns, and other resources. For more information, visit www.wusa.ca/glow or email glow@glow.wusa.ca.

TheUndecided

YOU CAN CHANGE YOUR NAME

Welcome! In clichéd language, you've turned over a new leaf, you're starting a new chapter in the story of your life, etc. If you don't feel that way right now but you *do* want to abandon a part of your past, here's a way to bring that sentiment alive.

The systems here at Waterloo allow you to set a preferred name, completely separate from your legal name. It's very easy and can be done through WatIAM, and it updates in about two days, but some changes may not be reflected until the next term. Since it's just your preferred name, it doesn't require any legal documents or anything like that.

Updating your preferred name will change your name across a variety of platforms used at Waterloo, including LEARN, but it probably won't change the name on your WatCard and it definitely won't change the name on all official documents, such as exams, proofs of enrollment, and transcripts. Those will still use your legal name.

You can now use your new name in all sorts of ways. Remember to introduce yourself using your new name. It will likely feel awkward at first, but you'll get used to it. If you are in co-op, write your new name on your resumes and cover letters; you don't have to use your legal name. Practice writing it out, although you'll still need to write your legal name down on assignments and exams. Consider changing your Facebook and other social media profiles to your new name, if you aren't using a different pseudonym anyway.

There is also a form to change your gender.

If this is something you've always wanted to do, please go for it. More likely than not, you're already experiencing a lot of new things right now, and you're surrounded by more people that don't know you for the first time, so it's the perfect time for experimentation.

If you're a prospective student and not enrolled or “in the system” yet, you can do this even easier by writing your new preferred name and gender on your OUAC application. I believe that the OUAC does require you to choose from a legal binary sex, but crucially, the UW application does not. Applications for campus residences are also very accommodating.

cy

It's very difficult to fit a good joke on just two lin

A SPACE CONSCIOUS blackBOX

THE CC SUMMARY PART 1 - THE EARLY ERA

Often editors and writers at **mathNEWS** fill the orientation issue with advice and information from upper years intended for new students. The various clubs and societies will write stuff about upcoming events, and the writers will talk of what they learned over first year, trying to provide useful insights to the influx of new readers. Bringing our new readers up to speed and whatnot. This 3-part article is doing that too, in a way, except instead of providing valuable or insightful or helpful or funny advice or memories or anything of the sort, I will summarize the Another Waterloo Series (AWS for short) by **mathNEWS'** very own author CC.

This is a very important series to the canon of **mathNEWS**. The series has been going on for longer than I have written for **mathNEWS**, and in this coming fall will enter its fourth term. The articles that comprise the AWS are often the longest articles in the issue and they will build upon what has been established in stories written months prior. The story has a wide berth of characters and will occasionally change genres. The current repertoire of stories can be found at <https://chench.ai/stories/>, and although I do highly recommend you read them all, the entire library is more than thirty thousand words long and took me five hours to read.

A lot of CC's earlier work focuses more on the experiences of being at university, explored through the lens of this fictional world. **Be warned, there are spoilers for the entirety of the AWS ahead.**

Before CC wrote the AWS, they wrote the series "X as a dating site", substituting X for any of the various Waterloo-adjacent learning websites such as Piazza or MS Teams, and analyzing how such a thing would work. This is relevant as the first story in the AWS is the final story of the "X as a dating site" series, *Bastion of Erudite Affection: mathNEWS as a Dating Site*. Unlike a typical "X as a dating site" article, *Bastion of Erudite Affection* was written as a short story. It starts with Camien, one of the main characters of the early AWS, crying in MC. Wordress, another main character early on, and Sarah, Wordress' best ol' pal who speaks in an accent that could be French or Russian or Scottish or Botswanan or Na'vi, overhear him from **mathNEWS** prod night. Wordress invites Camien to join the production night, an invitation he accepts. Their chemistry grows but they are interrupted by the COVID-19 pandemic. Their budding relationship continues over the series of lockdowns and stay-at-home orders. Finally, in May of 2021, when things have finally reopened, they meet again and go on a date. CC was a hair optimistic about when reopening would occur.

The next article in the series, *Arriving At Waterloo, in a Gentler Time*, is a prequel to *Bastion of Erudite Affection*. It focuses on Camien arriving in Waterloo for his first year in September of 2019 as a Math Honours first year. He encounters Blas, a side character who reappears throughout the series, in the taxi drive from the airport. Blas is very extroverted, in sharp contrast to Camien. He also encounters Joseph, who lives across the hall from him at VI. This story is very much focused on what it is like to arrive at Waterloo. Every ounce of

energy that went into writing it is in purpose of this goal. It is extremely precise in the small details that create that image. Out of all the articles summarized here, this one is the one where you would benefit the most from reading the original.

The next article in the series is *The Brilliant Name*. It focuses on a new character, Name Of Person. It focuses on how Name is too smart and hot and nice and perfect to connect with those around her. Blas returns as a first year student in Name's orientation group, and this story is the first to feature Maria as **mathSOC** board games night director. This story has to be understood on a more metatextual level. Where the **mathSOC** website has an empty space where a person should be, instead of leaving it blank it will say that the name of the person in the position is "Name of Person". This article is more or less poking fun at that whilst introducing Name, who is a major recurring character later on.

The next articles are the duology of *SE's Secret Laboratory I* and *SE's Secret Laboratory II*. The story is about Wordress and Sarah's quest to find an unoccupied space to study for their upcoming midterms. Everywhere is full, except for a room with a sign on the door saying it is exclusively for software engineering students. They pretend to be SE students to fake their way in, as per the advice of Maria, but they are caught and told they will need to prove their identities. They acquire hard hats from Blas, who "has connections", and they go back to the room. They are allowed to enter this time, however they find that in the time it took them to get hard hats, SE exams have ended, so the room is being used to host a boisterous "Carnage of Glory" tournament.

The next five stories are part of another small series, the Dialectics series. They contain *Dialectics*, *Dialectics II—Something to Tell You*, *Dialectics III—On That Tragic Day*, *Dialectics IV—Second-Hand Absolution*. Although not written as a Dialectics story, *Mellifluous Halls* was published right between *III* and *IV*, and is pretty critical to understanding the series as a whole. The series takes place between the beginning and end of *Bastion of Erudite Affection*, and serves to fill some gaps. *I* and *II* are pretty short. They are transcriptions of conversations Wordress and Camien had over the phone, with *II* ending on an ominous note as Camien tells Wordress the reason he was crying at the beginning of *Bastion of Erudite Affection* was because of his ex. *Mellifluous Halls* serves more or less as a flashback to why Camien was crying. Camien was in a relationship with a girl named Ellesmere. Their relationship had strained due to Camien's possessiveness. Joseph, briefly featured in *Arriving at Waterloo in a Gentler Time*, lies to Camien about Ellesmere cheating, out of envy. Camien handles their eventual breakup extremely poorly, does some regrettable things and ends up crying in MC, where he is found at the beginning of *Bastion of Erudite Affection*. *Dialectics III* picks up after the end of *Mellifluous Halls*, which Camien recounts to Wordress over the phone. Wordress is concerned at how Camien handled things, but in *Dialectics IV*, through a conversation with Sarah, she realizes he confessed the whole thing

for second-hand absolution and decides to go on a date with him anyway. This is the most soap-opera-esque the series gets.

The next two articles serve as an epilogue to the early AWS era. *Fan Service* is a rap song sung by Sarah about Sarah, and is presumably written and produced by Sarah. It is an actual song, in which “Carnage of Glory” is rhymed with “Twitch chat go rory”. You kind of have to listen to it for yourself. It’s kinda catchy. *Of Sunshine and Hope at the Rock Garden* is a poem written from the perspectives of Wordress and Camien on the very first moment of their date immediately after *Bastion of Erudite Affection*. The conclusion of these two articles and

the term is the conclusion of most of Wordress’ and Camien’s story, but the AWS is far from over. It has barely even started.

CC's third biggest fan by volume

Hello dear reader. Welcome to the footnote. Originally, all three parts of the CC Summary were supposed to be published throughout the orientation issue. Unfortunately, all together they are over 3000 words long, which the editors informed me is too much. This is literally 1984. Parts 2 and 3, which will bring you up to speed on the current story lines, will be out in a few weeks in issue 1.

PARLEY

Wordress Varma had only been in residence two weeks, and she already hated the girl across the hall. Her grating dubstep? Sure. Screaming “Ya rekt, kid! Ya should dis-install tha game, ha!” at two in the morning? Wordress had earplugs. Collecting empty bubble tea cups? It was her room. No, what *really* got Wordress was how every single evening at around ten, Sarah Cortés would bang loudly on Wordress’ *closed door*, and yell:

“Ya, Wordress! Wanna go out ta’ night?”

To which Wordress would reply: “Uh, sorry, Sarah. I, um, possess an abundance of studying I need to catch up on.”

Wordress would sigh, flip to the next page of the textbook she’d been failing to read for the last two hours, and continue procrastinating. Wordress would never admit it to herself, but she actually enjoyed the little ritual—a daily check-up, a spot of attention. But she’d tell herself she hated it, because if she liked it, she’d have to accept the invitation, right? And, she justified, there was too much homework to go fooling around with that truant Sarah. She *needed* to get good first-year marks.

On the twelfth night, there was banging at the door once more, but Sarah’s normal shout was missing. Wordress *hmm*-ed, got up, and opened the door. Annoying Sarah was standing there, staring at her with defiance written on her freckled face. She looked good tonight, dressed in a sporty sweater, yoga pants, and azure running shoes. A lime headband supported big poofs of curly auburn hair, and she’d slung a small backpack over both shoulders. Sarah was a touch shorter than Wordress, but muscular, solid, and handsome.

“Ya, Wordress, got a moment?” Sarah asked. Wordress nodded. “I ask ya hang out tha’ last ‘leven nights, but ya’ always busy! If ya don’ wanna hang wit’ Sarah ya can tell me, ya? I jus’ wanna be ya friend, ya know? Ya so cool, Wordress. Ya English sa nice, ya study sa good, ya clothes sa *fashion!* If ya hatin’ me askin’, tell me and I stop, ya? One las’ time I ask: wanna go out ta’ night?”

Wordress hated Sarah for putting her on the spot like that, but she *did* appreciate the flattery. “I, um, thanks for the kind

words! I’m so sorry, Sarah, but there’s this assignment due in three days and I haven’t started it and—”

“Ya, na worries, Wordress.” Sarah’s eyes were glistening, but her expression was stoic. “See ya ‘round, kay?”

Brisk steps stormed Sarah out of sight and around the corner before Wordress’ cold realization kicked in. Not only from the residence, but from their daily two-step invitation and declination, Sarah was *gone*.

For all of Sarah’s *annoying* quirks, she was still more than an acquaintance, and Wordress realized she did need friends. With a huff, and a last forlorn glance at the notes on her textbook, she slipped into her shoes and sweater and sped down the hall after Sarah. Round the corner, out the door, and almost slamming into Sarah, who was just unlocking her bike from the rack outside the residence.

Wordress was panting, and flushed a little at Sarah’s weary gaze. “Uh, Sarah, I, um, would like to proffer my, uh, sincere apologies for the ambivalence wherewith your warm solicitations have been received. Your, uh, zeal for my company is, like, deeply ingratiating contrary to my reciprocation, or, um, my lack thereof.”

“Wordy, I don’t know what ya saying.”

“Um... I guess... I’d love to hang out with you tonight, if your invitation is still open? And, uh, sorry for being dodgy earlier. I’ve just been, uh, worrying about wanting good grades, but what I really need is good *friends*.”

“O’ course, Wordy. Ya really full ‘a words, Wordress. Can I call ya’ tha’? Wordy?”

“I, uh, don’t mind,” Wordress smiled.

Sarah returned the smile and patted the back of her bike, which she’d extricated from the rack. “Hop on, Wordy. Ya, I gotta *legendary*’ lead ta’ boba place uptown.”

COURSE SELECTION: WHAT YOU'VE SEEN AND WHAT'S TO COME

Ickle firsties! I remember my first issue of **mathNEWS**, printed on paper and stuffed into my orientation bag—the start of something new and beautiful. In time, you too will start idly picking up copies of **mathNEWS** sitting on stands in MC, enjoying the lovely variety of shitposts, stories, math, news, and other things we talk about here, and eventually coming to your first prod night and starting to write for **mathNEWS**. But that is the future and this is now — now, you're a brand new student in the faculty of mathematics, with a bright academic career ahead of you. Congratulations!

Now, one of the most important things you need to do as a student at UW is choose your courses. Now, while most of you have a fairly amazing amount of choice as to what courses you can take, there are some requirements that you need to check off according to your chosen (or to-be-chosen) major. Some courses are mandatory, others are more like “do any x courses out of this list of n , for some $x \leq n$ ”, and yet others are like, “these are completely unnecessary and you'll be completely fine without them but *you can if you want to*”. All this can seem a bit daunting and intimidating at first, but I have here a couple of tricks that make the whole thing a lot easier to manage.

EASY WAY OUT FOR CS STUDENTS — SUGGESTED COURSE SEQUENCES

SUGGESTED COURSE SEQUENCES FOR CS STUDENTS:
<https://cs.uwaterloo.ca/suggested-sequences>

If you want a really structured plan that takes care of a lot of the thinking and planning for you (and you are a BCS or BMath CS student), then the above website gives you a pretty great starting point for how to plan your courses. You still need the knowledge in the sections below, but knowing this stuff really helped planning my courses out for me. There are a couple of caveats (most notably that it doesn't account for you wanting to take enriched second year courses, or specific 3rd/4th year courses), but in general it's a good place to start.

STEP 1: FIGURE OUT WHAT YOU NEED TO DO

UNDERGRADUATE CALENDAR: <http://ugradcalendar.uwaterloo.ca/>

Bachelor of Computer Science

Students in this plan must fulfil all the requirements in **Table I** and the following:

One of

- CS 115 Introduction to Computer Science 1
- CS 135 Designing Functional Programs
- CS 145 Designing Functional Programs (Advanced Level)

One of

- CS 136 Elementary Algorithm Design and Data Abstraction
- CS 146 Elementary Algorithm Design and Data Abstraction (Advanced Level)

One of

The University of Waterloo undergraduate calendar is *the definitive source* of what exactly you need to do to graduate. It lists how many units you need (most courses are 0.5 units), how many units you need from certain disciplines (for example, CS students need one unit [so two courses] each from humanities, social sciences, and sciences), how many units you can fail, what exact course codes you need to take, and more.

You want to, at least once an academic year, open up the Academic Plans and Requirements section under the Faculty of Mathematics, find your major, and see what courses you need to do in the coming year, and get an outline for what would be coming in the years ahead.

STEP 2: FIGURE OUT HOW TO DO IT

UW FLOW: <https://uwflow.com>

SCHEDULE OF CLASSES: <https://classes.uwaterloo.ca/under.html>

UNDERSTANDING THE SCHEDULE OF CLASSES: <https://uwaterloo.ca/registrar/registering-courses/understanding-schedule-classes>

UW Flow is a brilliant website. It can tell you nearly everything about a course—timings, professors, prerequisites, student reviews... you name it, it's probably there. The only drawback is that technically UW Flow is *not a University of Waterloo official site*. It draws from official sources though, and it can be helpful to know what these sources are and check them out directly.

Subject	Catalog#	Units	Title									
CS	241E	0.5	Found of Seq Prog Enriched									
Notes: ALL in-person TUT attendance is not mandatory.												
Class	Comp Sec	Camp Loc	Assoc. Class	Rel 1	Rel 2	Enrl Cap	Enrl Tot	Wait Cap	Wait Tot	Time Days/Date	Bldg Room	Instructor
6791	LEC 001	BLND ONLINE	1	101		40	40	0	0	02:30-03:50Th	Online	Lee,Edward
Reserve: CS (No SE) students						20	20					
Reserve: Software Engineering Students						20	20					
Held With: CS 241E LEC 002												
6792	TUT 101	BLND	1			40	40	0	0	02:30-03:50T	MC 2066	Lee,Edward
Held With: CS 241E TUT 102												
10723	LEC 002	ONLN ONLINE	2	102		40	40	0	0	02:30-03:50Th	Online	Lee,Edward
Reserve: CS (No SE) students						20	20					
Reserve: Software Engineering Students						20	20					
Held With: CS 241E LEC 001												
6793	TUT 102	ONLN ONLINE	2			40	40	0	0	02:30-03:50T	Online	Lee,Edward
Held With: CS 241E TUT 101												

The general details of a course that don't change over time, like the course description, title, prerequisites and all, are pulled from the undergraduate calendar. The things that change term to term—how many classes are offered, which professors are offering them, and so on, are pulled from the Schedule of Classes.

Now, the Schedule of Classes is a really weird thing. You go there, and you select what course code you want to look up,

and you select what term you want to look it up for, and it will tell you everything you need to know in a weird, scary-looking table.

There's a lot to unpack here, but a few things you should know:

Comp Sec: These are the different sections for a given class. Common values you may see here are LEC (lecture), TUT (tutorial), and TST (test). Most often you'll have to choose one of each—so if a course has lectures and tutorials (like above), you'll have to pick one lecture and one tutorial. Sometimes picking one will automatically decide the other, and sometimes you'll get a choice.

Different sections differ in the day/time at which they're offered, the room in which they are held (Bldg Room), and the instructor. If you have a preference for particular values of any of these, you might want to try to go for that section.

Camp Loc: This is a spicy one, or at least has been recently. This tells you where exactly your course will be held, and is composed of two words—the *campus* and the *location*.

The main campuses to keep track of here are the campuses “UW”, “BLND”, and “ONLN”—they mean that your class will be on the main UW campus, blended (ie. with parts on campus and parts online), or fully online, respectively. The main locations are “U” and “ONLINE”—they mean that this particular class will be delivered on campus or online.

So in the above example, BLND ONLINE means that this is the online part of a blended course, and BLND U means that this is the in-person part. ONLN ONLINE means this course is only online, and UW U means this course is only in-person.

Instructor: This is the name of the lecturer/professor who will be teaching the course.

Enrl Cap: This is the maximum number of students that can be enrolled in a class or a reserve. For in-person classes, this was generally determined by fire safety regulations—you couldn't have more than a certain number of people in a room, legally. For online courses I think it's determined by how many students the professors can mark assignments/hold office hours/do other stuff for, but I'm not sure.

Enrl Tot: This is the number of students currently enrolled. It is possible this number is greater than the maximum—sometimes (but rarely), a professor might give you an *override code* to join the class despite the enroll cap. 99% of the time, once this hits the cap, you can't enroll—see the reasons outlined above.

Reserve: X students: A certain number of seats in every course are reserved for students that meet some specific criteria. This is to make sure that these students are on track for their degree requirements—for example, to prevent ECON 101 from being filled by math majors looking to fulfill breadth requirements, a certain number of seats may be reserved for

Economics majors. That said, a few days into the term, reserves will generally be lifted, so you can enroll into “reserved” seats if they are not full by then.

Most of this information is available in a more accessible format on UW Flow, but it's updated more frequently on the Schedule of Classes, and UW Flow doesn't (yet) handle reserve information. So if you see free seats on UW Flow but can't enroll, check the Schedule of Classes to see if they've filled up since then, or if they're reserved. Also, if you don't see some information on UW Flow, check the Schedule of Classes as well—sometimes UW Flow takes a while to update.

STEP 3: FIGURE OUT WHEN TO DO IT

IMPORTANT DATES CALENDAR, REGISTRAR'S OFFICE: <https://uwaterloo.ca/registrar/important-dates/calendar>

There are a few main dates that you need to be familiar with:

Course selection period: Generally happens $\frac{3}{4}$ the way to the end of the previous term. Here, you choose which courses you would like to have next term. This period is *not* first-come first-served.

View next term's schedule and appointments: You learn at this point what courses from step 1 you got into. If you got into all of them, great, you're done! If you didn't get into some courses or if you'd like to change your schedule, read on. You also get the date and time for when step 3 starts for you.

Drop and Add periods: These two periods start at the same time for you (though the starting time differs for every student), but end at different times. During the Add period, you can add new courses. During the Drop period, you can remove courses you are enrolled in. These periods *are* first-come first-served—if you need to add a popular course, you need to hurry! When both of them are happening, you can “swap” courses (essentially drop one course and add another in a single atomic action—you don't get dropped if you were unable to add) as well.

The Add period ends before the Drop period, because the university lets you drop a course a pretty long time into the term with a full fee refund—long enough that having the Add period open that long doesn't make sense.

Reserves lifted: This typically happens a few days after the term starts, and close to the end of the Add period. At this point, if you wanted to enroll into a course but you were previously stopped by a reserve, you should be able to enroll now. You'll have missed a few days of work, but that's easy to catch up on.

For more details on these dates, and for generally a good idea of when academically important stuff is happening, it's a good idea to keep an eye on the Important Dates calendar. That said, generally the university will shoot you an email reminding

you of the correct dates if you didn't check the calendar for whatever reason (maybe you didn't read this article?).

Side note: the Important Dates calendar will also have other, well, important dates—like university holidays, the days when classes start/end for a term, the days when exams start/end for a term... it's generally a good idea to keep an eye on it.

STEP 4: DO IT

QUEST: <https://uwaterloo.ca/quest>

COURSE SELECTION PERIOD, REGISTRAR'S OFFICE: <https://uwaterloo.ca/registrar/registering-courses/course-selection-period>

DROP/ADD PERIOD, REGISTRAR'S OFFICE: <https://uwaterloo.ca/registrar/registering-courses/dropadd-period>

You may remember Quest from the pre-admission trauma it inflicted on you. Good news, it never goes away! All of the above steps were just us hunting-gathering information. The actual enrollment process for every course happens on Quest. The Registrar's Office has some pretty detailed guides on how to do nearly everything you might need to do on Quest during course selection and drop/add, so here I will just refer you to the links above and wish you luck!

GETTING HELP

ACADEMIC ADVISING, FACULTY OF MATHEMATICS: <https://uwaterloo.ca/math/current-undergraduates/academic-advisors>

MATH ADVISORS EMAIL: mathadvisor@uwaterloo.ca

If you get stuck anywhere or have any questions, don't worry! There's always an academic advisor here to help you out. They can help you with understanding enrolling in courses, but also course requirements, declaring your major, and much more. You can email the advisors for the entire Faculty of Math, or (recommended) open the link above and find out how to get in touch with the advisors of your specific program.

Cool tip: if you want to get into an advanced/enriched/upper year course but don't meet the requirements, you'll have a better shot emailing the professor rather than advisors.

CONCLUSION

And that's it! That's basically everything I know about selecting courses, and I've enrolled in five terms worth of courses with no major problems with this information. Now go forth and enroll in courses hither and thither and yon, because that's how one gets out of this hell lovely place known as UW Math!

N THINGS YOU CAN EAT ON CAMPUS

AT LEAST THE LAST TIME I CHECKED...

- Warrior Burgers
- Steak (occasionally)
- Gummy Bear Ice Cream
- Make-Your-Own Cola Floats
- V1 Jello Cups
- "Premium" Cakes
- Math C&D Coffees
- Math C&D Donuts [*Editor's note: unfortunately, the Math C&D is currently undergoing a large renovation and will not be open.*]
- mathNEWS issues
- Your socks
- Your MATH 135 assignment
- Three pounds of V1 salad-bar salad
- ML's Diner Milkshakes
- Math C&D Veggie Samosas

CC

BEING STUPID

Looking stupid and being stupid are two very different things, and two things that I became conscientious of since coming to Waterloo.

If you think you are stupid, then...

- you could be forgetting about how intelligent you are,
- you could be limiting your ability to grow and develop,
- consider otherwise,
- remember that among thousands of applicants, you were accepted,
- whoever approved your application believed that you would be able to adapt to UW's pacing and environment,
- know that you do belong here.

For a lot of students, it's their first time *not* being the smartest person in the room all the time. While you do have to accept this sentiment, know that the only person that you should compare yourself to is who you were the day before. Only you can tell if you are growing from what you learn from yourself. Your peers don't define your intelligence, nor do your grades or co-ops.

No one here is stupid and you are not an exception to this.

Deriving for Dick

TOP 10 FORTNITE HACKS MATH 135 FULL EXAM BANK HOW TO GET FREE FOOD [GONE SEXUAL] [NOT CLICKBAIT]

Foolish first years! You've fallen into my trap of a carefully crafted and eye-catching title that I have specifically created to get your young and attention-deficit brain to read my article. And now that I've gotten you with my amazing clickbaiting skills, it's time to talk about what's actually important for you right now: me. More specifically, I wrote an article with advice I wanted to share with you incoming students, that is totally not based on the many, many mistakes I made in my first year which now feels like 700 years ago. So here's a list of tips distilled from years of experience in UWaterloo and 3 hours of stress writing (aka, all your future assignments):

1. **Eat your vegetables!** Now I know that you're thinking: "Gee golly! **methNEWS** must be a Big Pharma shill who's getting paid by the vegetable companies to squeeze the last cents out of our wallets before harvesting our organs for the Clintons' world domination cabal," and I can assure you—at least one statement in that last sentence is false. Don't get me wrong, I still stand by the opinion that shawarma is humanity's third greatest invention (beaten only by fire and alcohol, all three of which are necessary to deal with a bad exam). However, I'm also pretty sure I got scurvy in first year from eating shawarma too often. Therefore, try to spice up your usual diet with some healthy vegetable-rich foods, such as potato fries or garlic sauce, which are coincidentally the ingredients in a Shawarma Plus Authentic wrap. Don't forget to use code "Meth" at checkout to cause massive confusion and awkwardness with whoever's taking your order.
2. Do you know what's common between a bad co-op term, an amazing study semester, and the adorable hamster named Google I had in Grade 4? That's right, **they all pass eventually**. The great thing about Waterloo's co-op schedule is that no matter what's bothering you at the current instant, it will probably go away in at most 4 months. (Unless it's geese. The geese will outlive us all.) So never let a bad course or internship bring you down (leave that job to said geese).
3. **Do you like someone you know?** Just ask them out for food or bubble tea. There's nothing more universal than a math student's love for food, a caffeinated drink, or having someone to complain to about their exams. Although it may be terrifying, you really are losing nothing by trying this. You might get rejected, but look on the bright side: the heartbreak will prepare you for the much worse feeling of getting ghosted by a job posting that required a cover letter. Also, if a student you meet doesn't like getting food or drinks, they are most likely a terminator-like robot sent from the future to destroy humanity by killing a student in

Waterloo before they lead the uprising against the machines. In that case, it is up to you to stop them from accomplishing their cruel and world-ending mission (or alternatively, befriend them for some easy CS help).

4. **Be open minded.** As a person who went to a sheltered, private, and religious high school before coming to Waterloo, I wasn't exactly "down with the streets" as the kids say these days. Although it took me a while to adjust to hearing words like "bougie," "ahlie," or "Brampton," it did open my eyes to the wonderful culture of the University. To help you out, I prepared a short list of lingo us cool cats use in the 'loo:
 - A group of male CS students is often called a "scrum," while a group of female CS students is usually referred to as a "myth."
 - A popular joke is calling Lazeez a "shawarma restaurant," and if you've never been you might believe it. But its actually short for *la zone maleeze*, and it's an exquisite French restaurant right on Columbia Lake.
 - Many of the University staff seem to be pulling this prank where they refer to PD courses as "legitimate classes that should be taken seriously." We're not sure how this hilarious mischief started, but the students have caught onto it a while ago. For some reason it's taking them a while to give up on this joke though...
5. **Don't bother learning LaTeX.** I've gone for 4 whole years without learning that useless gimmick of a markup language,

and my

- document formatti
-
- ng *game is stronger*

than ever.

-
6. **Focus on your hobbies.** Working on something outside of school that you enjoy is not only healthy for you, it's also a great excuse to procrastinate on assignments. If you're looking for recommendations and have read this far into my article, chances are you're either a fan of comedy or have absolutely terrible reading comprehension. Either way, you're qualified to write for **mathNEWS!**

A HOW-TO GUIDE FOR THE ADVANCED COURSES

AND WHY THEY'RE NOT QUITE AS SCARY AS YOU THINK THEY ARE

Do you remember choosing your courses this past summer, and reading about MATH 145 / 147 and CS 145? These are the so-called “advanced” level math and computer science classes that you can take in your first term in math at UWaterloo. This is an article intending to clarify the role of the courses, and emphasize why you should consider them.

The advanced math courses are called “advanced” not primarily because of a difference in difficulty level, but because of a difference in approach. The advanced math courses focus on teaching you theory and proofs, as opposed to applications. In the advanced math classes, you will see definitions of mathematical objects and properties, as well as statements and proofs of general mathematical statements. On your assignments, you will be expected to use these results to prove (or decide the truth of) other statements. The focus is on a theoretical understanding of math in the abstract case, as opposed to how to use math to compute things in concrete cases.

Doing assignments in advanced math courses is a lot like solving puzzles. You are given all the pieces of the proof, all the ideas, terms, definitions, and theorems you will need, and you just need to figure out how they fit together to complete the proof. Admittedly, these puzzles will sometimes be significantly more challenging than the similar ones that you would see in the regular honours level courses, but it tends to be the case that if you participate in the course and put effort into it, you'll gain the tools to succeed.

The advanced level computer science course, CS 145, is a faster-paced version of CS 135, where you jump right in to high-level abstraction and algorithms. In much the same way as the math courses, CS 145 does emphasize the theoretical aspect of programming, but it also challenges you to work on how to code effectively and efficiently. This, and the follow-up course CS 146, can be great starting blocks for a successful CS degree and career.

Note that it is indeed true that the advanced courses are not for everyone. Not everyone appreciates or needs to know the theoretical aspects of algebra or calculus or computer science, and that's just fine. However, if you are interested in what the advanced courses are all about, there is no reason you should be wary of trying to take them.

There is theoretically (hah!) no downside to enrolling in the advanced courses—you can drop from the advanced courses to the corresponding regular level course at no penalty, right up until the end of the drop WD period. This is a special policy that is designed to give you the opportunity to succeed. Practically, this is a bit of an issue if you actually do drop down very late in the term, because you will probably have not had the same amount of practice as the students in the regular level course at some of the more computationally heavy portions of the course. Talk to your professor and advisor as soon as possible if you end up contemplating this option.

Now that you know a bit more about the advanced courses, and are hopefully intrigued by them, you should learn how to enroll in them! If you didn't have the option to do so earlier, you'll have to talk to the instructors who are teaching the courses and fill out course override forms which you can submit to the Registrar's Office. Procedural information can be found online.

If you are trying to transfer courses, and you haven't yet, try to at least sit in on the lectures of the target class. *[Editor's note: This is usually a good idea, except that there are no in-person lectures for the advanced courses this term.]* Keeping up on the material in the advanced courses is highly important, especially early on.

Once you're in an advanced course, be sure to put effort in! They are usually more challenging, if not by design, but they are very rewarding, both epistemologically and grade-wise, since the idea is that if you are in the advanced courses, you'd probably do very well in the regular level courses. This is dependent on the work put in, of course. Note that your class is much smaller than a usual first-year math course, and so it's not only easier to meet others in the class, but establishing relationships with them and with your professor will be much more fruitful, as you can work on problems together or get help. The advanced math community tends to be close and supportive, so you'll never be alone in any struggles you might have.

Best of luck!

Scythe Marshall and TheIdentity

WHY YOU SHOULD TAKE THE ADVANCED MATH COURSES

Man, just fucking do it. If you're insecure and indecisive enough that you're still reading this, you are the *perfect* candidate for the advanced courses. Go in there and have the inspiring character arc you were born for already.

A cool pen name

**Being a mathematician
requires imagination.**

PROF. BARBARA CSIMA

MINECRAFT

Some-odd years ago I once stayed up until 6 am playing games like Cards Against Humanity and Spyfall over the internet with a couple of people that I didn't know very well. I'm not sure how it happened. I think there were four people at the end, including me, but I only remember two of them.

Isaiah was someone I tenuously knew from school. Danilo didn't go to my high school, and I didn't know him at all. I only sorta-kinda knew *about* him because of all the time I spent admiring Cindy, a girl I knew who was good at art, had a Tumblr, and was friends with Isaiah and Danilo this is relevant I promise.

(Danilo also had a profile picture of the kappa emote from Twitch. People actually used to say “kappa” back then. Like out loud.)

The memory is foggy now. I only remember bits and pieces. I remember being really, really sad. I don't remember about what. I was also immeasurably lonely.

It was fun. Danilo and Isaiah were nice to me, and hilarious, and I like to think they found me hilarious, too. I can't describe the exact feeling of that night. Fuzzy, warm, delirious. Comfortable. Belonging. Not wanting it to end.

It did end, of course, at around 6AM, and I was exhausted and crashed into bed. In the rest of my high school career, I maintained my extremely distanced friendship with Isaiah, and never once again talked to Danilo.

I thought that I would never experience a night like that one ever again. And I was right, until **December 19th of 2019, the day of the Fall 2019 mathNEWS End of Term (EOT) event.**

I was in 3A. I hadn't yet made any friends at UW, and I assumed I probably never would. I had already done all the things I was supposed to do: I had joined clubs (like **mathNEWS!**), talked to other students in my classes, even went to eat dinner with them once or twice. But it never led anywhere. I was uncomfortable. I was always stuck in that oh-god-this-conversation-is-so-awkward-how-can-I-end-it-ASAP zone.

The event for the term was a Minecraft server. I don't remember too much about what it was like. Probably hectic, lots of building, I took over a village or something and got a bunch of emeralds.

It doesn't matter what the gameplay was like, though. What matters is that we were all talking to each other over a Discord voice call during EOT as well as for days and days afterwards, since the editors decided to keep paying for the Minecraft server in lieu of having pizza at prod nights. We talked about Minecraft, of course, and about our lives, and other things, as conversations go. It was, for the first time, natural.

And it was like that again, the night I spent with Danilo and Isaiah. But this time, it happened again and again, and this

time I became friends with people at **mathNEWS**. I don't know how close we are, or how long we'll even stay in touch after graduating, but what's for sure is that we're friends right now.



MY FIRST GIFTS FROM PEOPLE AT UW.

People make friends differently. I'm not saying that what I did in previous terms didn't work—because they *did* work eventually. It's what led to my participation in the **mathNEWS** Discord server, and then in the **mathNEWS** Minecraft server. So it worked, just not in the way that I expected. **I learned that making friends is both “you make it happen” and “it happens to you”; it's not just one or the other.** But the ratio between the two things will differ from person to person.

The **mathNEWS** Minecraft server hasn't seen activity in a long time now. It petered out a few months ago, but it's had a good run. As for Isaiah, he's dating Cindy now. Go figure.

cy

N THINGS YOU CAN DO TO MAKE FRIENDS

- Go hang out in common areas in residence!
- Volunteer at MathSoc! mathsoc.uwaterloo.ca/volunteer-at-mathsoc
- Join MathSoc Clubs! mathsoc.uwaterloo.ca/clubs
- Talk to the Geese!
- Talk to people in your classes!
- Join MathSoc Council! mathsoc.uwaterloo.ca/council
- Join WUSA Clubs! wusa.ca/clubs
- Sit down by people at the residence food places!
- Go to MathSoc Games Night!
- Sit down around campus in the various lounge spots!
- Attend Waterloo Ready events!
- Write for **mathNEWS!**

CC

N REASONS NOT TO JOIN A CLUB DURING FIRST YEAR

By now, you've probably already heard a gazillion over-eager, hyperactive upper years scream at you to join clubs, get involved, and participate in Waterloo's assortment of societies, affiliated organizations, and events. But let me clue you in on a secret: behind those smiling facades and the twenty-six FAANG bullet points on their resumes is an agglomeration (agglomeration: a group of people, otherwise known as I'm being a snotty verbose bitch) of sleep-deprived, Adderall-addicted, lonely fuckers who just want your attention. So let me tell you the truly enlightened approach to starting your university experience right, because I bet you that if you ask any of your so called "upper year mentors", none of them actually joined a club or society in their first year.

- You might meet agreeable people whose company you genuinely enjoy. That can only lead to one thing: self-hatred. Finding true friends is just the top of a slippery slope that starts with "oh man, I hope they think I'm cool" and ends with "these amazing people are crazy for wanting to hang out with me, I am a fraud and imposter, I'm a terrible human being and do not deserve kindness, they are here out of pity and entertain themselves with my misery :("). So yeah, better not go there. It's much much easier to live your life without ever having interacted with people who truly understand your vulnerabilities, quirks, and passions. And joining a club is a sure-fire way to bump into people you like and admire. Right away, a terrible decision.
- You might find out what kind of person you are and what things you enjoy doing. Let's be honest, you are not mature enough to realize how utterly normal you are in a vast sea of identical undergrads who are stamped with numbers and passed through the university like a burning, 4-year long shit travelling through the long intestine after a late night run to Taco Bell. It is much easier for you to believe in your own self worth and pretend that you have a fragment of permanent uniqueness that you acquired through high school popularity (alternatively, through unpopularity, you underdog) than to consider the possibility that you are a multifaceted person with a whole universe of possibilities and the full capability to change your entire identity with one decision. That epiphany will come in second year, so no need to rush it.
- By joining a club, you are more likely to find a mate and relieve all your pent up sexual tension. It's literal scientific fact that humans get better grades when they're horny. So if you don't want your GPA to drop below the waistline, keep it in your pants and don't mingle.
- You might get distracted from academics by fun events. And yet, consider this: you came here to study. You are paying thousands of dollars to this university to get through courses and graduate with a little sheet of paper that you can show an employer as you beg them to buy your skills and

time for a less than desired wage. That you should take a moment's rest from the forever anguish of homework-study-assess-repeat — what a truly disturbing idea! What a waste of time. A human brain works better in routine. Do not attempt to break the routine of absorbing and regurgitating knowledge by engaging in relaxing activities. That is not what university is about.

- In a club, you might learn about different cultures and points of view. I don't even need to explain how absolutely stupid that would be.
- A club provides networking opportunities after graduation. Look, if your accomplishments aren't entirely your own, then you don't deserve them at all. If a friend you met at a club offers to help you move your stuff during a move, you might as well have killed their parents, stolen their savings, and used their toothbrush. A decent human being does not ask or accept the help of others, no matter how deceptively helpful they are trying to be. If a club exec you met at a university event happens to be the interviewer for a job you were hoping to get, you may as well stand up and walk out of the room immediately. No need to burden the interviewer with the inevitable consequence of favoritism purely on the basis of a short interaction in the past that was memorable enough for both of you to be relevant in this moment. If you are going to achieve any success in life whatsoever, it must absolutely and completely be at your own cost and sweat.

So I hope these reasons suffice, and that I have insulted you enough to join a club out of pure spite for me. The Taco Bell shit analogy should have helped with that too. Good luck in first year, kiddos!

A cool pen name

SOME ADVICE

Below is a partial list of help and advice that I wish my first-year self would have gotten in my first term of university. Note that this all comes from the perspective of someone who is an out-of-province student.



For Math students, **this advice is for if you do not know anything about majors and can't decide on what major to choose.** If you don't choose, know that in the end, it defaults to something called "Mathematical Studies," so don't worry if you have not decided on a specific major. This means, at the very least, look up the requirements for Mathematical Studies and work towards it. I wish I knew about the default much earlier instead of in my third year, since it makes each term's course selection much easier.

There is going to be a barrage of new sites coming your way in the first few weeks of class. If you don't know exactly what each site is used for, or you don't know how to use each site, go find a non-first year student and nag them until they help you. The mathNEWS Discord is a good place to find non-first year math students. *Hint Hint*

It's okay if the MATH 14# classes feel too hard. There is no shame in switching to the equivalent MATH 13# course instead. Although, I do believe there is a deadline for that, which is after the first 10 weeks [*Editor's Note: The deadline is earlier for CS 145*]. Even if you miss that deadline, it turns out that there still is a way to switch although it is a bit more complicated. It is also perfectly okay if you cannot handle the course load. Of course, it all depends on which courses you end up doing, but being a Math student, there's not going to be that many times where you end up with a bunch of courses and a light course load. So, if your 5 courses feel like too much, you may want to consider dropping a course or two to do later in subsequent terms, especially if you are in co-op as co-op basically acts like a sixth course.

In terms of clubs, **if you know which clubs to go to, you can easily score free food.** They throw around so much money all over the place as if they were investments from Nauru. If you regularly go hungry because you lack the money and time to buy and make food, relying on clubs that just give out free food helps a lot. *Hint Hint*

You may end up getting free food, but that doesn't mean the situation with water is any good. **Did you know that you can classify water into different types?** The main ones you need to worry about are "hard water" and "soft water" because despite Waterloo literally containing the word "water" in its name, it doesn't have the good kind in my opinion. For pretty much my entire life, I have only drunk soft water, so when I first drank Waterloo's hard water, I first thought I drank contaminated water because there was an actual taste detectable. I was baffled! How does water have a taste?! I highly advise you invest in a good water filter. You don't want to end up constantly drinking from bottled water because that isn't environmentally friendly. If you cannot afford to buy all that bottled water and can't stand hard water, you will end up being dehydrated often without that water filter. Remember that the water that comes from the water fountains and cafeterias at UW is almost all hard water, though there is a better chance of getting less hard water in some of UW's newer buildings, such as M3. Also, when you take a shower, the hard water feels rougher like it has more friction than soft water. To get my point across on the difference, note that the water hardness here is measured in mg/L. The difference in water hardness between Waterloo and where I live is two magnitudes. Hopefully, you can now see why I am so vocal about the water. You may safely ignore this advice if you are already accustomed with hard water.

In addition to the water, **prepare for some culture shock once you arrive at Waterloo**, and I'm saying this from someone living in the same damn country. I don't just mean the small differences like how they call donairs "shawarma" for

some reason, or seeing bagged milk in person for the first time in your life. Speaking of cultural differences...

If you are coming from outside Waterloo, **do not assume that the drivers at Waterloo behave like the drivers where you are from.** I swear that some of these drivers I have encountered around campus drive as if they want to run over people. Good luck trying to cross a street that does not have any traffic lights. Some of these drivers don't slow down at all near crosswalks. All of this shockingly includes bus drivers too. However, some of you may comparatively find the drivers of Waterloo to be an improvement. It all depends on what the conditions are like from where you are from.

If you ride buses after midnight but before the next morning, the displays will be buggy at those times, and sometimes it will show that a bus will arrive even though no buses will ever arrive until the start of the following day's service at around 6am. I found out about this bug the hard way involving phone calls with GRT customer service at 2:30am standing at a cold bus station after the last bus had already left but with the display still perpetually showing that a bus would arrive in 5 minutes.

Waterloo does have street-level trains, but **please do not "fuck around and find out" when it comes to trains.** The trains run at surface level at Waterloo, so when the train barriers become lowered, you respect that barrier, even if you are late for something. If you don't live in UWP, this will not end up being something encountered often. Do use the trains though. They are pretty good with adequate enough frequency and service to get you where you mostly need to go.

Use the bridges that connect UW's buildings together to your advantage, especially when it becomes cold and snowy. Within the Ring Road, most buildings are connected to each other. The exceptions mostly lie along the extremities, away from the central core of connected buildings. Though, do note that some bridges are locked and inaccessible after a certain point of the day.

There is a free shuttle service that runs every day of the year around campus at night. Use that to your advantage. It is not frequent at all, but it is better than nothing. I believe it consists of one or two vans. There are set points around campus where they pick up and drop off students. There will be signs posted at those locations. I have no idea though if the pandemic affected its operation in any way. [*Editor's note: At time of publication, the webpage for the late-night shuttle (<https://uwaterloo.ca/police/campus-safety/shuttle-program>) is down.*]



I wish I could have included more advice for everyone, but sadly that would take up too much space, and I need to leave some for the other articles. Stay tuned for Part 2 for more advice in the next issue (147.1) of mathNEWS!

A FIRST YEAR MATH STUDENT'S GUIDE TO WATERLOO SHORT FORMS

ActSci - Actuarial Science. A major you can choose within the math faculty. Pairs nicely with statistics, ambition, or a love for ca\$h money.

C&D (CnD) - Coffee & Donut (shop). The Math C&D is located on MC's third floor, and sells cheap food and drinks. Other faculties have them too, but who cares? (Rumour has it that the Science C&D has the cheapest stuff, but you didn't hear it from me.)

CEE - Co-operative and Experiential Education. The name you'll see in the From field of a lot of your emails if you're in co-op.

CFM - Computing and Financial Management. A program that combines both Computer Science and Finance. This program is your ticket to fitting in with both fancy finance people and nerdy computer science people. And possibly your ticket to an identity crisis if you read too much into that.

CLV - Columbia Lake Village. A townhouse-style residence that's super far away from everything you care about. On the bright side, old people like grad students live here, so maybe you can learn from their wisdom or something.

CMH - Claudette Millar Hall. The newest student residence on campus and the only traditional - style residence with AC. Truly the place to be if you're living in residence in the spring term.

C(&)O - Combinatorics and Optimization. A program within the Math faculty. It's probably the answer if you've ever asked yourself questions like "Which major should I choose in order to maximize pleasure, knowledge, and future earnings using at most a specified amount of effort and hours of my time?"

CS - Computer Science. CS students are the people who are qualified for all the co-op jobs you wish you were qualified for. Strangely, they also seem to be the majority of people you meet during Math Orientation. *[Editor's note: If there were a Math Orientation this year, this would be even truer. *obligatory 225% joke here*]*

DC - William G. Davis Computer Research Centre (Davis Centre). A couple lecture halls, some CS prof offices, food, and most importantly, the DC library. It feels almost as much like home as MC. Easily one of the greatest places to study among other math students.

DD - Double Degree. A program that allows students to get a BBA from Laurier while simultaneously getting a BMath or BCS from Waterloo.

DP - Dana Porter (library). This is more of an arts library but it's still pretty cool for a break from the usual study spaces every now and then. Going here may make you feel like you're

cheating on DC, but it can offer you tenth floor views, which DC just can't compete with. Sorry, DC.

FARM - Financial Analysis and Risk Management. A program within the Math faculty. Not like the kind with cows and chickens and tractors and stuff.

GRT - Grand River Transit. The KW region's transit system. GRT is your new best friend, unless of course, you have a real friend who has a car. If so, congratulations on winning at university life already.

KW - Kitchener-Waterloo. They're like the conjoined twin cities of Ontario.

LinAlg - Linear Algebra. A class Math students have to take in first year, and maybe again later, depending on their program.

M3 - Mathematics 3. Screw standard naming/numbering conventions, right? After Math & Computer and Davis Centre, the only logical name for the next math building is Mathematics 3. Stay tuned for Mathematics D and then Mathematics Cinco after that.

MathSoc - Mathematics Society. Want to know more? Stop by MC 3038 to check them out ;)

MC - Mathematics and Computer Building. Also known as your new home. Love it, respect it, get used to it. Expect to have a lot of classes here, and expect to spend a lot of hours in the tutorial centre (MC 3022) slaving over assignments.

MKV - Mackenzie King Village. A suite-style residence located between REV and VI.

PAC - Physical Activities Complex. This is where you will have some of the most unpleasant experiences of your university careers. Like writing exams. Or even worse: exercising.

QNC - (Mike and Ophelia Lazaridis) Quantum-Nano Centre. This is actually an engineering building but it forms a triangle with MC and the SLC so it's sort of in math territory. Also, the tables by the windows looking out on the Peter Russell Rock Garden are some pretty rad places to study (Or at least as rad as study spaces can be).

REV - Ron Eydtt Village. A popular dorm-style first-year residence. Unofficially known as the party residence or social residence. But then again, this is Waterloo, so even REV is pretty tame compared to Western, or Laurier, or other schools that actually party.

SLC - Student Life Centre. Centre of the University Universe. Home to great food (including Tim Hortons!), clubs spaces, study spaces, the turnkey desk, and the only place to get food on campus ^{24/7}: International News. Also conveniently located

near Math, Science, and AHS (sucks to be Arts, Engineering or Environment).

Softies - Software Engineers. Weird hybrid creatures that belong to both Engineering and Math. Kind of confusing, but pretty harmless. They are our friends.

UWP - UW Place. A suite-style residence located on University Ave. Not exactly on campus, which is kind of inconvenient, but it's across from the plaza, which makes up for the distance. (Plaza = Burger King, convenience stores, all the Asian food you could ever want, and other such wonders).

V1 - Village 1. Another dorm style first year residence. Less social than REV, but they get single rooms and a better cafeteria, so who even cares? *[Editor's note: All students in residence will have a single room this term, so I guess the first point doesn't matter.]*

WLU - Wilfrid Laurier University. That neighbour down the street who we have a love/hate relationship with.

There are a lot more, but these are a few of the important ones. If you hear any others that you're curious about, Google is your friend :) Welcome to Math, and good luck!

TheUndecided

FALLING ASLEEP AFTER LANDING ON A RAINY AUTUMN ONTARIO

Originally published in v144i6

It's a 60-dollar ride from the airport, and you've pre-paid the tip this time, and the driver is adjusting the knobs and looking kind of tentative about the volume but given that you remember none of what played afterwards he must have quite some skill in the procedure. The window is the kind with the dots that show a logo on the outside and you look through them.

Both of you are trying to fit your heads into any sort of crevice or supportive cushion you can reach. You feel just about to topple over, and you sort of do, but all the fogginess in your head has vanished in the meantime. What you manage to comprehend feels somehow incredibly clear. The bumps and rolls of the highway, the waving clumps of trees. An indeterminate car-hum. No sign of movement from the other passenger.

Sometimes the window reflection lets you see her; it disturbs you to look. It's a human being, right there up next to you, and you can see, like, her collarbones and neck tendons and fingernails and stuff. You wonder to yourself how many times before have I just stared (via reflection) at a stranger for this long. Maybe one day I'll ask her the same question, years from now us mutually reminiscing about this stupid plane-shuttle ride that was the beginning of pretty much everything, and you throw that thought into the locker where you hope it'll get garbage-collected sooner rather than later.



To you, a small hope sits in an empty airplane seat. The possibility of a person. It's very quiet; you feel its subtle weight. The person who comes and sits in that space will probably crush your hope, but it's used to it. Still it is there, for that little time.

This time, she was there, wearing a faculty hoodie and everything. What sort of person buys a hoodie before setting foot in the university you also never imagined finding out.

(And don't even think about why she's STILL here, after the carousel, down that artery of that godforsaken airport, on the opposite seat right now, okay? There's an equivalent 'small hope' for these little van rides that you're sure you don't have to elaborate on, and, well, uh...)



You study at the University of Waterloo. You study Computer Science under the Faculty of Mathematics. The person next to you is entering her first year, just Mathematics for now, but is interested in Pure Math, or maybe Combinatorics and Optimization. She was one of those highschoolers who took a huge head start on immersing into Waterloo culture. She's a fan of that really long multi-part first-year experience recounatation story by George Kennebunkport *[Editor's Note: Available in the previous orientation issue, 144.0]*; you both don't get **profQUOTES**.

"They should keep the good ones, but these people have some interesting standards. I'd rather read those **BLACK BOXES** if they need to fill space."

"I think the, um, appeal is in the context. If you were in that class when the professor said that line you'd find it funny reading it again, it's like re-experiencing the funny thing that happened, and it's also a sort of *shared experience* that makes you feel good, 'cause you share the enjoyment of the funny thing with your peers by all of you reading it"

"Yeah, I get that for the good ones, but for a lot of these," she points at one, "why was the original experience even funny in the first place?"

To this you had no answer, at least not then. The trolley came by and you got an orange juice and she got a ginger ale. She only drinks ginger ale on airplanes, and trying to drink it on the ground nauseates her. You will remember this.



Tired, now. Your adrenaline has worn off, since then. You're looking straight through the dots, out at the foggy Ontario flatness. You're leaning on your seatbelt and letting the past roll through you over and over. Somehow, you manage again to be sad.

It had always felt inevitable to you that you would end up how you are now. You had a girlfriend once, a level person, the sort of person who you'd like to imagine as "normal", but really no normal person would hold on to your hand out of their volition and then let go as gracefully as they had, once they realize how feeble your own grip was. The whole thing didn't even sting that bad. It was more like it un-buried something that you already knew was there.

You turn your head and look at her, "for real", as in no reflections or anything. You watch the creases of her coat crinkle and shift up and down. Definitely asleep. You stop looking, embarrassed and somehow ashamed. You hear the dampened pattering of rain; underneath, a quiet rhythmic breathing.

It feels like someone put in an awful lot of effort for you today. You think of some God or other watchful creature, someone marking things down and pulling switches. You imagine passing them standing among the sparse tall trees, listening to you and the rain. Today they're here, and probably after you get off you—all three of you—will part ways forever. You apologize to them, quietly. Sorry, whoever you are. This probably isn't what you had in mind when

"hey."

you have to nudge her a bit

"Hey. We've stopped. Are you awake? We've stopped."



"Thank you, I'd appreciate that. I have a map of the school as well, if you want it..."

"Haha, of course, you already know the way."



You pass the remaining luggage handle. You manage a strained wave. She makes a face—a smile, probably. You look at the puddles until her back disappears into the building.



"Yeah, I remember you. Why do you ask?"

"Okay, whatever. Hmm..."

"Ah, a ginger ale. I'm pretty sure you had a ginger ale."



I eventually turned around on **profQUOTES**. Turns out, they do get better if you hear them in real life first.

girafarig

N THINGS YOU CAN DO AROUND GEESE

- Don't look at them
- Don't pet them
- Don't feed them
- Don't touch their eggs
- Oh crap you touched their eggs I TOLD YOU NOT TO
- Oh my god oh my god they're here already???
- crap crap where's the bear spray—

CC

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UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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SO... WHAT'S THIS "mathNEWS"?

IF YOU'VE READ THIS FAR, WE'VE SURELY PIQUED YOUR INTEREST, HAVEN'T WE?

Allow me to introduce myself. The (writer) name's Finchey. Compared to you fresh-faced, fledgling first-years, I'm a whole dinosaur—being over halfway through my undergraduate degree and all. What they say is true—your back starts to hurt, your hair turns white and falls out, but first-years? They stay the same age through it all.

Whenever this time of year hits, I find myself filling the role of **mathNEWS** outreach worker, preacher, evangelizer. On my own volition of course—the editors aren't *that* tyrannical. Why, you ask? Because **mathNEWS** has been one of the flippin' highlights of my university experience. It's corny as hell, but it's true. It's fun to write for, and there's really nothing else in the universe like it.

So to answer the question posed in the title: according to Wikipedia, **mathNEWS** is a “free-form publication.” In the publishing world, that's shorthand for “any shit goes.” I really do mean that. Pick out any old issue from the archive on mathnews.uwaterloo.ca and you'll see. Despite having “news” in the name, and often being referenced as the Math Faculty's student newspaper, **mathNEWS** has very little *actual* news, and maybe less math than you'd expect (there is still some though, since a lot of the writers here are nerds, and I say that with nothing but affection in my heart).

Maybe after perusing this orientation issue and some backissues online, you'll find that you really like reading **mathNEWS**. That's great! You can keep up with new issues this term as they get uploaded to the aforementioned website every other Friday. But why stop there? Because I promise you—if you get any enjoyment at all from reading **mathNEWS**, you'll have six times as much fun writing for it. There's a low barrier to entry (*it is* the editors' job to fix your fucked-up grammar) and no commitment, so even if you join one production night and happen to hate it (a very rare and very *triste* occasion), whatever.

Think about it: you get to write about whatever you want and have it immortalized in **mathNEWS** 'til the end of time (did you know physical copies of every issue of **mathNEWS**—ever—are housed at the Library and Archives Canada building in Ottawa?), plus make up a slick pseudonym for yourself, answer **mastHEAD** questions with your wittiest one-liners, and ask professors all your burning questions for the **mathASKS** column. Writing not your thing? If you're the artsy type, you can submit illustrations for the cover or the interiors, as well as cartoons and comics. Like puzzles? Sign up to be a **gridMASTER** or **puzzleMASTER**.

At time of writing, no one's really sure if **mathNEWS** is gonna be able to host in-person production nights in the Fall. Which is too bad, since I was otherwise gonna dive into a spiel about the free pizza. Believe me when I say we used to get the *gourmet* shit. Yeah. We're talking custom, artisan toppings like grilled zucchini and pesto sauce! Well if this term doesn't pan out, here's to hoping for Winter 2022, eh? (Hopefully I won't

have to eat my words again, unlike with last year's orientation issue... Whoops.)

That's all I have to say for now. I'm pretty sure an editor will have gone over the technicalities of attending production nights and contributing to **mathNEWS** somewhere in this issue. To summarize: read **mathNEWS**! Write for **mathNEWS**! Sacrifice your soul to **mathNEWS**!

Finchey

THE CAMPUS WAITS

A patch of land within a road called a ring awaits the coming of the new school year. It has sat barren far too long, and it knows it may still have to wait longer in order to regain its former population. But for now, it will settle for at least a few thousand.

There are two years' worth of students who, for many of them, have never stepped foot on this patch of land. This term is simply the beginning of the arrival of those new students. The new ones are the best. Exploring, getting lost, marvelling at all the sights. The older ones don't always appreciate it, at least, not as often as they should.

The buildings upon it are simply shells without the people. From the concrete box of MC to the colourful “L” that is DC, they provide the background, but it is the people that provide the atmosphere.

They have sat without people before, occasionally on the weekends, in-between terms. But this has been far too long without the energy a new school term usually brings.

So, if you're on campus: enjoy it. It's been a rare experience these past couple years. But if you're not, don't worry. You'll get there in time, and it'll mean just as much to you when you do.

Predap



lookAHEAD

SUN SEPT 5

MON SEPT 6

TUE SEPT 7

WED SEPT 8

THU SEPT 9

FRI SEPT 10

SAT SEPT 11

Labour Day

Classes begin

Time to start on your first assignments!

SUN SEPT 12

MON SEPT 13

TUE SEPT 14

WED SEPT 15

THU SEPT 16

FRI SEPT 17

SAT SEPT 18

Prod Night next Monday!

Course reserves lifted

CONTRIBUTING TO mathNEWS: THE DETAILS

You made it to the very last page! By now, maybe you're thinking about contributing to **mathNEWS**. But how is **mathNEWS** put together, and what would you need to do to see your glorious pen name adorning these pages? Let me help with that!

In a typical term, **mathNEWS** publishes six issues, once every fortnight. Issues hit the shelves (and the website) on Friday mornings, but the process of creating that issue starts much earlier. Many of our contributors do their work together, on the Monday before that Friday, in an event we call the **Production Night**.

Normally, Production Nights are held on-campus in one of MC's computer labs, where we could mingle and eat free pizzas (We've probably mentioned the pizza like ten times by this point). Last year, we moved our production nights online, due to COVID. **What about this year, then?**

...We don't know yet. As I am typing this, our many emails inquiring on the matter have still received no response. However, by the time you read this, we've probably gotten an answer. Find details on Production Night by joining our **Mailing List**: mathnews.uwaterloo.ca/?page_id=21214. There's no spam, just notifications for when Prod Nights and other special events are happening!

If you go to Production Nights, **mathNEWS** editors such as myself can personally guide you through the article submission system. However, **you don't have to attend Prod Nights to contribute!** The simplest way to submit your work is to email it to us at mathnews@gmail.com.

You can also contact us, and we'll set you up an account in our **mathNEWS** production website; most of our regular contributors submit their articles this way. The editors can be reached through that email address up there, or through our Discord server (invites available through the mailing list).

If you want to submit to a specific issue, make sure to get it in by the Tuesday after Production Night, around 9AM Eastern. Any submissions after this won't make it in, and will be put in the next issue.

One last thing before you get started: Take a look at [The mathNEWS Style/Submission Guide](#), available in issue 139.2 (mathnews.uwaterloo.ca/?p=12973). It contains some pretty straightforward guidelines on your submissions that will make both our lives easier.

And that's all you need to know to start contributing to **mathNEWS**! For some extra fun, take a look at our Twitter and Instagram (we're @uwmathnews), where we post our published issues along with some other goodies.

I hope to see you on our first Prod Night on **Monday September 20**, wherever it happens to be!

bipED