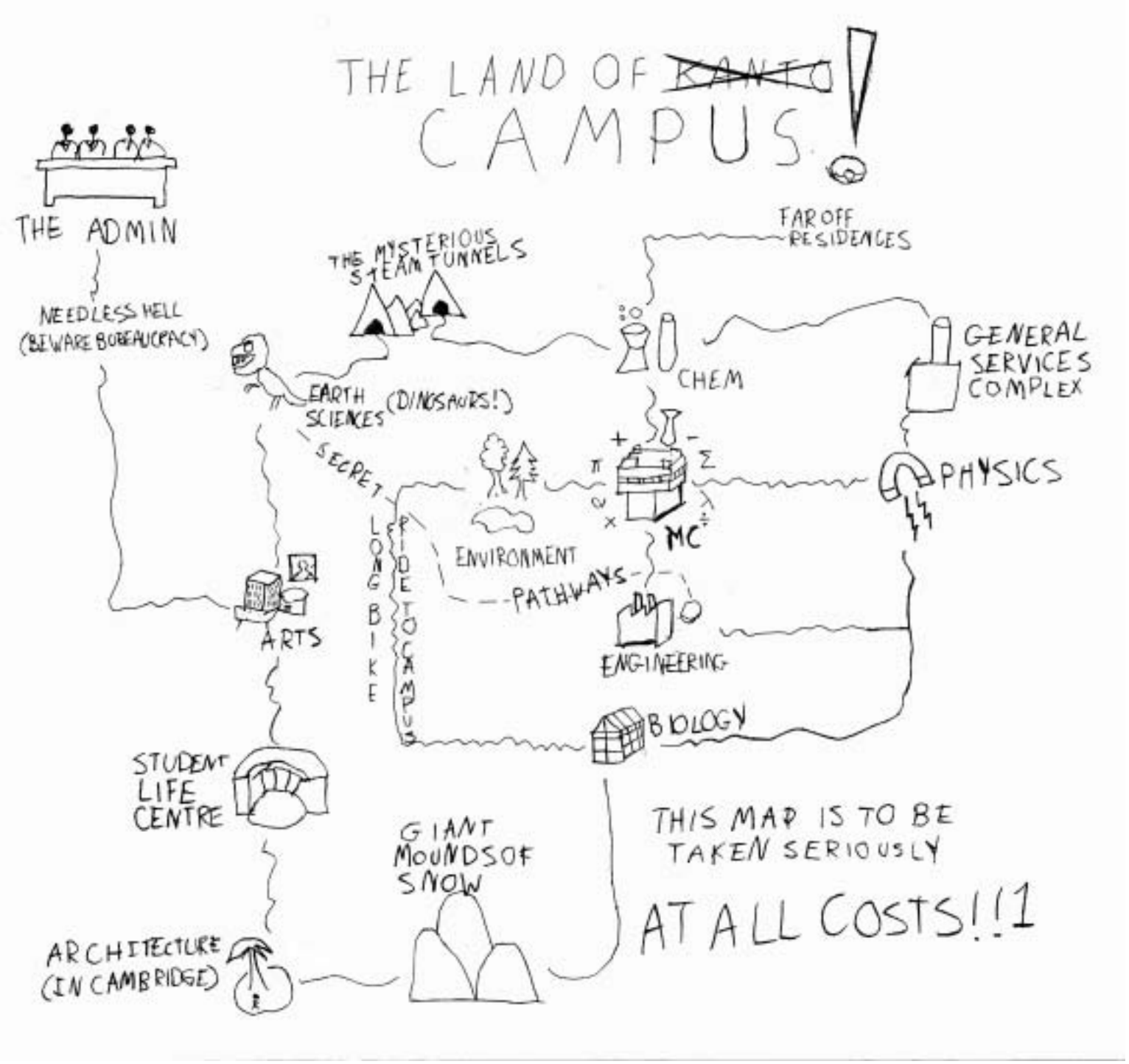
mathNEWS

Volume 114, Issue 0 *Orientation Issue, 2010*



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What is a *math*NEWS anyway?

Find out at the Disorg: September something-th

*math*NEWS is like an old friend. It shows up, pretty regularly, on every other Friday, makes you laugh, cry, and scratch your head trying to solve puzzles, and then says "see you in two weeks!" Best of all, you can take it into class, and let it entertain you there (unlike "dancers"), and your professors won't care. Heck, sometimes they read it while teaching.

Now, *math*NEWS doesn't just appear magically, it gets put together by a very tight knit group of writers, productionists, and three editors. Why three editors? 'Cause, really, neither of us are good enough alone to do the job, let alone any job... maybe that's why we are unemployed, and just do volunteer positions.

If you are interested in coming out and helping with *math*NEWS, you should come to our **disorganizational meeting** on day TBA **at 4:30 pm, room TBA** , or feel free to stop in on one of our production nights (we post posters in the stairwells on production nights; they generally occur every other Monday, and the first one is TBA, but it will **start at 6:30 pm in MC 3038**), check the door to our office (or come in if we are there!) at MC 3046, or email us at mathnews@student.math.uwaterloo.ca.

All of us here at *math*NEWS are always looking for new writers, proofreaders, artists, puzzle-writers, and general what-have-yous. Everyone who helps out gets to party with us at our end of term bash, and eat lots of pizza with us, not that sixteen slices makes you feel good two hours later ... but whatever.

Sudoku!

	6		9	5			8	
	4	8		6			5	7
	7			3			2	1
	5			1	3	8	9	
	2		7	4	5		3	
	1	3	6	9			7	
5	3			8			6	
6	8			2		5	4	
	9			7	6		1	

		4			6	7		3
7		1	8				5	4
		2			4			
	9			6			7	2
	4	6				8	3	
1	2			3			4	
			1			2		
2	7				3	4		1
4		9	2			3		

ISSN 0705—0410

Founded 1973

*math*NEWS is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. *math*NEWS is editorially independent of MathSoc. Content is the responsibility of the *math*NEWS editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or *math*NEWS. Current and back issues of *math*NEWS are available electronically via the World Wide Web at http://www.mathnews.uwaterloo.ca/. Send your correspondence to: *math*NEWS, MC3046, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1, or to userid mathnews@student.math.uwaterloo.ca on the Internet.

The Editors: Jeff Bain (F10/S10), John Stevenson (F10), John Baxter (F10), Rami Finkelshtein (F10), Harrison Gross (S10), and Will Hughes (S10).

More Editors than you can shake a stick at!

Why you should write for *math*NEWS

Why should you write for *math*NEWS? Yes, you, the one reading this right now. No, not someone else who might happen to be reading *math*NEWS , just you. I really think you should write for *math*NEWS. "But why?" I hear you wonder. Yes, I heard that, I hear all. Well there are many reasons to write for *math*NEWS.

- **Fun**. This cannot be overstressed. It is fun, or at least it should be. If you're writing for anybody at any time and it is not fun, then something is wrong, or maybe it is the ELPE, or a work report, or ... fine. But writing for *math*NEWS is fun. Whether you just have your own personal fun at home and e-mail the article in to us, or come out to Production Night and have some free food fun, it's all really quite a lot of fun.
- **Rewarding**. In so many ways. From e-mail from 14 year-old boys who use AOL to letters from Iran, your material can generate a response. There is also the rewarding feeling of creating a piece of writing and knowing it will be published. Some also find the free food a kind of reward.
- **Looks Good**. On, say ... a resume. Employeers always want good oral and written skills; what shows that better than contributing to a bi-weekly publication? You don't have to answer that.
- **Getting Published**. *math*NEWS is an official publication with an ISSN number. Two copies of every issue go to the National Archives. Beyond being released to the entire campus every other Friday, and mailed to our subscribers, your work will also be published online on our website (www.mathnews.uwaterloo.ca), which is pretty highly rated on Google.
- **People Read It**. People *will* read it. At least people pick it up. Some might try and tell you no one reads *math*NEWS , but after a few week of distribution detail you discover just how many people read *math*NEWS . Late in the afternoon when I return to campus to clean up at the end of the day, I see people walking home with *math*NEWS in their hand. I see both students and faculty picking up copies. Some profs get issues mailed to them. People at bus stops waiting to take the bus home have copies in their hands. Look — right now, you are reading *math*NEWS .

We give you the opportunity to be published. You have the chance to make people, your fellow students, laugh and/or think on Friday mornings. You can rant, point out what you find funny about life, or just express yourself however you like. Anyone can contribute to *math*NEWS . So please, send us an e-mail at mathnews@student.math.uwaterloo.ca.

Phat Albert

This is filler!
It is used to take up extra space on the page that we couldn't fill up with articles or comics.

Welcome to UW!

We, mathFOC, would like to welcome you to UW and wish you the best of luck in your 1A terms.

Here is some advice we've compiled just for you: • Take the time to meet people and try new things!

- Go to class
- Get involved (clubs, societies, varsity, recreational, intermurals, and more!)
- Start your assignments early
- Time management is key!
- Midterms approach faster than you think! Be prepared!
- Sleep!

We had a fantastic year together planning for your orientation and we hope you had an amazing time!

Congratulations once again and welcome!

Patrick, Julianne, Abhishek, Maria
Math Orientation Directors
University of Waterloo
orientat@math.uwaterloo.ca

10 Alternative Uses For Textbooks

So you were all excited and bought all your textbooks during Frosh Week. Now, the day of the exam, you say to yourself "I spent $150 on that book, I really should open it at least once."

So here's a list of some things you can to with textbooks:

1. Assault weapon: some of textbooks weigh several kilograms and are easily thrown.
2. Weight training: Books are heavy, weighing quite a few pounds each, and are easily lifted.
3. Look Smart: Books are a means to show off the fact that you are educated and usually weigh less than a stone.
4. Fly Swatter: Once, during a lecture, Prof. Jackson took his backpack and threw it at a wasp on the ceiling. Do you really think that it would have killed the wasp without a textbook in it which weighed more then 2 newtons? Really?
5. Building Cardhouses: Textbooks are sort of like big cards. So you can make really big cardhouses. Since most people won't have enough books to make a really kickass cardhouse, get your entire class involved, you know you have enough books when you are counting the books by the ton.
6. Hammer: Textbooks can bang things just like a hammer. They may even weigh many carats more.
7. Screwdriver: To put a screw in the wall, line it up where you want it and bash away. Works better if textbook exceeds 12 troy ounces.
8. Lullabies: The best way to fall asleep at night is to attempt to read a textbook. Or perhaps have someone bash you over the head with a textbook. (Crap I can't think of any mass unit to provide the necessary cohesion to this article ... ABORT ARTICLE!) *[...and he was just about to mention how balancing textbooks on one's head can improve posture — TaxiEd]*

Dave Nicholson

A First Years's Guide to the MC

(or: Stop Asking Me for Directions)

Welcome newbies! Now, being first-years you no doubt find the MC to be a large, terrifying behemoth of a fortress from which no soul can ever escape. That doesn't go away. But I'm here to make you lost slightly less often when you're wandering these desolate corridors. First of all, in each corner of each floor is an extremely useful map of the floor (just like in every building on campus), with room numbers and little pictures. If you're looking for a class or professor's room, these maps are key. (For the purposes of this article, north is defined to be the side closest to the SLC.) Also, every floor has women's rooms in the northwest and southeast, men's rooms in the northeast and southwest. So you don't have to walk down more than one side of the building to find your bathroom .

First floor: You might have a class on the west side of this floor, but more important is the CHIP on the east side. They'll sell you software at a discount and fix your computer if you ask them real nice. Helpful people. There are exits at each corner of the building (and on the west side) halfway between first and second floors. (Hint: If you're looking for madness, open the doors between 1081 and 1083.)

Second floor: You will probably have a few classes here, mostly on the east side. There are a couple of computer labs here, if you're in need of a computer lab. Campus Copy is in the middle of the floor too. This is a useful room for printing out anything you can't do yourself. Class slides, assignments, work reports, pictures of yourself sprawled out on a bed of rose petals...just bring them a data stick and they'll print out what's on it, in whatever quality you want. They also do binding, photocopying, course notes, ID photos, and lots of other printing activities.

Third floor: This is really the heart of the MC. You have the Comfy Lounge and the C&D on the west side, all of the club offices on the south side, more labs in the middle and north side, and the MCFC over near east. If you have problems with your UWaterloo accounts or other computery problems, you can see them. It's also the home of MathSoc. You should swing by if you get the chance, they offer alot to Math students.

Fourth floor: There are a lot of classes here, as well as some important offices. The Math Undergrad Office, which you'll need to get course override forms and hand in work reports and all kinds of administrative things, is on the north side.

Fifth floor: There are prof offices here, as well as a couple of program offices (like Pure Mathematics on south and C&O on the north). As well, the west side has the CEMC, which is the department that helps schools in Ontario and all over the world to teach math and computers. Really great people. Starting on this floor, the bathrooms start being a lot cleaner, too.

Sixth floor: This endless labyrinth of twisting corridors was designed by a professor of pure mathematics. The maps can only been viewed in four dimensions. Half of the students who you stop seeing after first year actually just wander onto the sixth floor and are never seen again. Pray that you never have to find a professor's office up here.

Seventh floor: IT DOES EXIST! I'VE SEEN IT! IT— [The rest of this article has been withheld by the University Censorship Board, which does not in any way confirm the existance of a seventh floor of the Mathematics and Computers building.]

Prometheus

What MathSoc Is, What MathSoc Does

Why is MathSoc awesome? And before we get there, what is this MathSoc in the first place, and why the heck should you care?

Well, it's the Math Student Society at UW, and each term, student fees are collected (this means from you!) to go towards events, services, clubs, and other cool stuff that students of that can (and do!) take advantage of. Read below to learn more about these, and how to take MORE advantage of them!

Events

Every term, a group of dedicated volunteers become MathSoc Social, Games, Movies, and Publicity Directors... together, Directors of *Making Fun Happen*! They bring you scheduled weekly events, such as Games Night and Movie night, where you can enjoy some snacks, enjoy some great company, and enjoy some awesome movies and games. Also, they bring you popular large events, such as Beginning of Term Parties, Pi Day and Pi Approximation Day, Pints with Profs, Post-Midterm Parties, 24-Hours Games Day, Halloween and Valentines Day candy grams, and more. Sometimes, even bigger events like dances, bingo nights, and math competitions make awesome come-backs. Had enough schoolwork? (Very soon you will!) Bring your friends and make some new ones at one of these events!

MathSoc events are advertised on posters on the pink boards around the MC, and often through our website. You can also get email-updates on these events by signing up for the MathSoc-Announce mailing list, which you can do by coming by to the MathSoc office (read below).

Clubs and Committees

There are many student committees and initiatives in the Math Faculty, many of which are supported by the Math Society. First off, there are clubs for each academic major, where you can meet like-minded students with the same academic interests. You can find their offices on the 3rd floor of MC, in the main hallway. They offer both social events, like trips and parties; and academic events, such as lectures and seminars relevant to your major. Check out the club websites by going to mathsoc.uwaterloo.ca/clubs, or visit them directly in their offices on the third floor of the MC.

Committees supported by MathSoc include Women in Math (and the newly-founded Men in Math might be taking its stand alongside them pretty soon) - the people who run fun social events for all genders as well as encouraging networking among female mathies and math-graduates; Math Graduate Committee - the people who will make your yearbook and run your Grad Ball the year you graduate; Math Endowment Fund - the people who make some capital improvements happen, as well as the people who can fund your trip to a math-related conference; Orientation - you totally know what they do, as well as Software Engineering Orientation and AFM Orientation; more here?

Furthermore, the infamous *math*NEWS is also funded through your student fees.

Services

AKA The MathSoc Office, MC3038

The MathSoc office is open for your convenience, and has lots of stuff you can use, such as computers, printers, staplers, hole-punchers, and paper cutters. Printing at the MathSoc office is $0.05 per page if you print double-sided, which is cheaper than anywhere else on campus! Also (soon some of you may need this), work-report binding at the MathSoc office will cost you $75 or $1 for two covers and a spiral, and the friendly office workers will help you bind your report using the binding machine. That's almost five times cheaper than getting it done at Graphics or Kinkos! At that price, you can even bind all your homework assigmnents - although I wouldn't recommend it.

There are two public-use photocopiers (which accept cash only, not watcard) for $0.05 per page, and you can even make transparency slides.

Further, lots of goodies are sold for cheap in the MathSoc Office, from the extremely useful to the hilarious! If you ever run out of important school supplies, we have them all: pencils, pens, erasers, lined paper, graph paper, clip boards, faculty-approved calculators and more are sold at-cost. Further, mathy clothes and memorabilia can be found there, including t-shirts, sweatshirts, water bottles, shot glasses, keychains, and more; with t-shirts at only $10. Oh, and lots of old *math*NEWS issues are around which you can buy for a super low $0.00.

But that's not all - you can also rent! We've got textbooks, reference books, and board games that you can rent for your studying or your event. Unfortunately, we won't rent your our pencils and erasers. Our board games collection (now in partnership with the Waterloo Science Fiction Club, WatSFIC) has over 300 titles. Also, we've got course-selection books and prof-evaluation books that you can browse through - that way, you can check out your past and future profs and see how they were rated! What to make your event even better? Drop by the Exec office (MC3039), and you can rent a projector, or even a cotton candy machine and a popcorn machine (the only ones on campus!). It doesn't get better than this.

Oh, and I'm not finished yet! The MathSoc office also contains one of the best and brightest groups on campus - our volunteers! They're fun and energetic, know lots of things about this campus, and will not leave you bored. If you're ever feeling lonely or out of things to do, you don't need a better reason to drop by the MathSoc office. We'll be waiting to see you!

Capital Improvements

Want comfier couches in the Math Comfy? Want more power outlets in the CnD? Want new books in the MathSoc library? Want better food in the CnD? Awesome, so do I!

Think you've got no control over such things? Well, think again! All these projects, and many more others, have been funded through the MathSoc Capital Improvements Fun, and executed by fellow students like you - all you need is the desire to do something and the resources that MathSoc already provides.

How to get involved

Want to get involved with MathSoc? If you've made it this far in reading my rant, then you probably do :) hooray! Let me give you some details.

If you just drop by the MathSoc office and say a friendly hello to the workers, or if you find an Exec and tell them your concerns about things on campus, then you are already involved! But if you want to do more, there are several routes you can take:

1. **Become an office volunteer.** This involves learning about the services provided at the office, and sitting behind the office desk (for at least an hour per week - c'mon, that's less

weekly time than you spend in the bathroom!) and helping out the people who come into the office. But very rarely will you be in the office alone - there are always lots of volunteers there, so you will have people to chat with, to play games with, and to copy homework off of.

2. **Become a Director or a board member.** Directors are the people who make things happen for MathSoc! There are lots of positions available, depending on your interests: Social (run events), Games, Movies, Publicity (run public campaigns for events), Postings (put up posters), Computing (support MathSoc's internal network), Website (support MathSoc's website), Resources (support MathSoc's exam bank), First-Year Affairs (hold post-midterm party), Office (look after Office operations and stock), Charity Ball (run the infamous Charity Ball every Fall term), and more. Directors rarely work alone, with several people holding co-directorships, and several board members available to volunteer. Let us know if you want to get involved and starting Making Fun Happen, and we'll connect you to people who definitely need your help. Directors are also required to hold one office hour per week.

3. **Get a vote, become a Representative.** First-Year Reps have votes and sit on Council - which means they play a deciding role in all the funding that MathSoc provides and all the decisions that MathSoc makes. It's serious, big-world decision making. You'll see someone coming around to first year calculus classes during the first week of school, so be sure to speak up and get your friends to vote for you. Council members are also required to hold one office hour per week.

4. **Join Council.** There are other ways to join the MathSoc Council without getting a vote - such as becoming a Secretary, a Speaker, an Internal Financial Reviewer, and so on. These are positions with lots of responsibilities and are very well respected on Council. Plus, how great would something like that look on your resume! Council members are also required to hold one office hour per week.

If you just want to learn, you can come to Council meetings anytime without joining (we'll even feed you at the end!) - just join the MathSoc Mailing List from our website mathsoc.uwaterloo.ca, and get updates on upcoming Council meetings.

Your friendly neightbourhood MathSoc Prez
Nadia Novikova

What If Yoda Were An Academic Advisor?

"Down to General, you go."

"STAT 231, you must confront STAT 231 again."

"Political Science, heh, Geography, heh, a Mathie craves not these things."

[Student]"I won't fail Graphics, I'm not afraid"
[Yoda]"Oh, you will be, you will be."

"Pass or do not, there is no bell."

"Concurrency is the path to the dark side, Concurrency leads to OS, OS leads to Real-time, Real-time leads to *Suffering*."

[Student] "MATH 135 is so much different from high school."
[Yoda]"You must un-learn what you have learned"

"He is too old, yes, too old to begin a Bachelors degree"

"Always two there are in a Masters program, a supervisor, and a grad student."

"A Mathie's strength flows from caffeine, but beware of the dark side, laziness, partying, procrastination, the dark side of the force they are."

[Student] "Is the Faculty of Arts stronger?"
[Yoda] "No, no, no, quicker, easier, more seductive."

"Sterile!, Humid!, My office this is!"

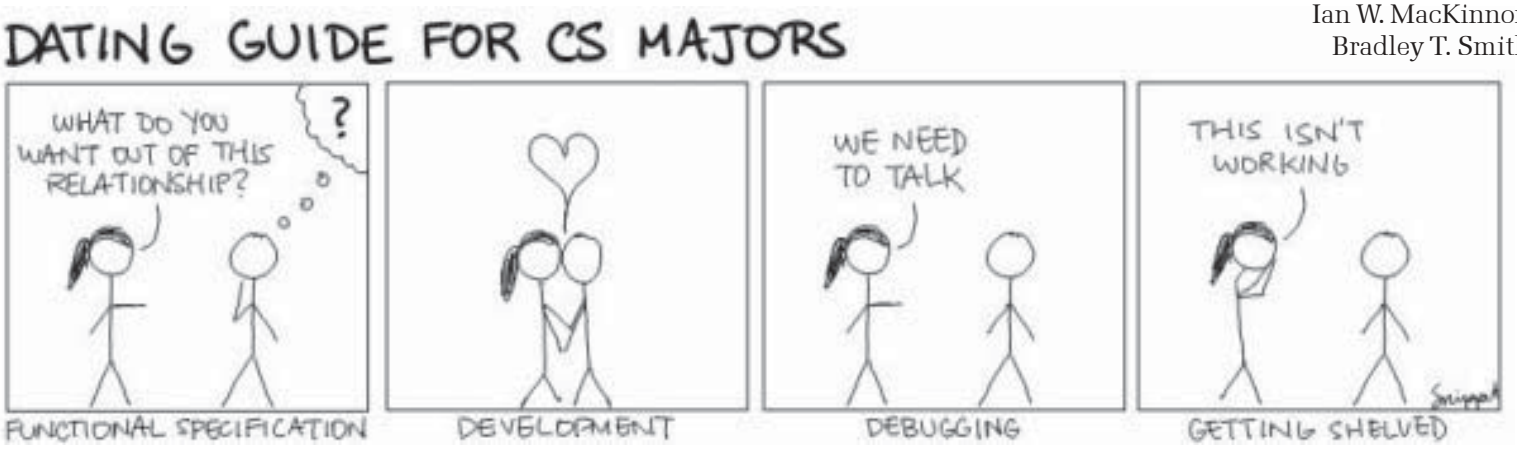
"Only a fully trained Mathie with the Force as his ally will conquer the Professor and his Dean."

"Do not underestimate the power of CS 135, or suffer Snuggles' fate you will."

[Student]"I finally passed STAT 230"
[Yoda] "There..is..another..STAT..course"

"When 400 level you reach, look as good you will not, hmmmmm?"

Ian W. MacKinnon
Bradley T. Smith



Your First Week at Waterloo

You wake up. It's dark, and you can barely see the piles of boxes around you. You remember that you're moving to Waterloo to begin your life as a PN trainer. Like every student, you are poor - but Mom had the brilliant idea of riding in back of the van with all of your stuff. You regret it a little, and your neck is sore, but you're also excited since you know that you are well on your way to new adventures, new friends, and a better life. Suddenly, you hear the squeal of old metal brakes, and everything lurches to your left for a moment. Then the engine breathes a sigh of exhaustion, and you are momentarily blinded by the midday sun as your Mom opens the back door. "We're here!" she exclaims excitedly,

The moment you step out of the back of the van, you realize what a feat it will be to carry your things to the top floor. Mysteriously, even though your mom hasn't hired anyone to move your things, some unusually keen strangers help out, and after three or four trips, you've managed to move your stuff upstairs. Unpacking can wait until later; you've got the essentials (like clean underwear) so you figure it's time to go exploring.

Upper years have left the following remarks scrawled throughout the sands of time and mathNEWS.

In the MC, look for landmarks — rooms that have funny shapes, or the C&D (Coffee and Donut shop — note, they accept only cash). You won't be able to rely on your sense of direction. Washrooms are in the corners; Elevators are in the corners with Womens' washrooms.

There are two main libraries on the Waterloo campus; one in the Davis Centre (DC on the map), and one in its own building, known as the Dana Porter. (Everyone calls it DP, but it's LIB on the map.) DC is good for maths/science/engineering books, and tends to be the noisier of the two. DP contains englishy/arty books, and has lots of stairs.

If you live in residence, determine the difference between food money (which usually dramatically loses purchasing power after the term in which it is bought) and flex dollars (which basically only suffers from inflation). Budget your food money wisely — you don't want to be forced to waste your money at the end of term, but you don't want to run out the week before exams start either. Exams on an empty stomach are terrible.

Be wary of the tribal feelings between Math and Engineering. If you choose to deal with Engineers (particularly the chimeras in Software), you do so at your own risk. This is particularly important during orientation week.

If you're daring, try talking to a few upper year students. Many like to hear the sounds of their own voices, and perhaps you can get some useful wisdom out of them. It also helps if one of them ends up being asked for their opinion on the next batch of co-ops.

Write for mathNEWS. It's fun. If all you can spew is gibberish, that's fine... if nothing else, your fellow writers will be amused during production night.

Finally: It's okay to make mistakes this week. Everyone is nervous. Say hi to a an attractive member of the opposite sex, exchange email addresses with people, and make some new friends. While you still have four months of classes afterwards, you don't want to regret what's going to happen this week.

The Polar Azure Dinosaur

Unnatural History

math*NEWS*

In the begining...
there was *math*.
Then we tacked **NEWS** onto it.
But that's not the whole story.
For the whole story we must go back.
Waaaaaaaay back.
To the start of the epoch.
Ok, shortly after the epoch.
Give it a year.
The mathies were restless.
They had been doing their math for a full graduating class.
But they didn't feel satisfied.
There must have been more.
Something beyond the integrals,
The analysis,
And the batch jobs that suffused their existance.
Great ground was being broken in Math and CS!
But the mathies no longer wished to use their creativity!
So one day.
In 1971.
They wrote an article.
And it began like this...
"They did and it didn't"
And then they wrote about real news.
They reported about the nice things.
Like the C & D.
When it was just a stand on the 3rd floor.
And for a time... it was good.
And then it got better!
Puzzles were placed.
Gridwords were generated.
*prof*QUOTES were professed.
And columns came and went as students graduated.
And that's the truth.
Or so I shall tell you.
The real story is way more exciting.
It has dinosaurs.
And high powered lasers.
And several rings of power.
As I recall a time machine was involved.
How did you think the science paper *Dark Matter* came about?
At one point there was a division by zero.
The less said about that, the better.
In either case,
The mathies rejoiced.
For they had *math*NEWS!

The Unnatural Historian

You have got to be kidding ... This is the faculty newspaper?

profQUOTES

Don't profs say the darndest things? *prof*QUOTES is the most popular feature of *math*NEWS. This is where you will find funny, stupid, or ambiguous things uttered by professors and record by students like you. If you think one your professors has said something quotable, send it in (along with their name and the course name) to mathNEWS either by email (mathnews@student.math.uwaterloo.ca) or dropping it in the BLACK BOX, and you will probably find it in the next issue! It could be an incentive for you to stay awake in class.

Below are some of the better quotes uttered in these class rooms with in the last few years.

(written on board) We can "graphically" represent a graph with a graph diagram, called a graph."

Mosca, MATH 239

0 x 0 = 0, except on the STAT 230 midterm, where it could be any number of things, according to you guys.

Chen, STAT 230

You're not a real mathematician until you've tried to prove that the World Series converges.

Wolczuk, MATH 138

The correlation between the decline of priates and global warming is ridiculously high, something like -0.95! So clearly the lack of pirates is causing global warming.

Chisholm, STAT 230

There are four S's in 'STATISTICS': one, two, three... There are four S's in 'STATISTICS'.

Chen, STAT 230

It's what professors do! Take something completely obvious, make it incomprehensible and call it a lecture!

Mackay, STAT 231

Now I'm going to verify infinitely many of these and leave the rest for you.

Godsil, MATH 146

There are three series you should know or you'll fail the course: geometric; harmonic; and there's probably one more... I fail.

Hewitt, MATH 138

This symbol means 'it does not exist'. If you cross it out, it still does not exist. If you cross it out twice, it exists even less.

Sendov, MATH 138

Who thinks 20%? No one? Usually somebody goes for that... you guys ARE smarter than the people at York.

Brecht, CS 354

We're going to talk about nets; anyone in the class a fisherman? (dead silence) This morning in my 247 class I was talking about saddle points, so I asked if anyone had ever ridden a horse and no one would admit to it. Then I asked if anyone was a hiker because mountain passes look like saddles. Then I asked if anyone had ever been in a car driving through the mountains. Finally someone admitted to having been outside once.

Hare, PMATH 453

You're junior co-op students; your employers don't have the time to fire you.

Smith, ECON 101

I did something very dumb today at lunch. I had [too many] cups of green tea today at lunch. I can just see myself staying up until 3 a.m. tonight vacuuming.

Koeller, MATH 137

Prof: Is that clear now?
Student: No... and don't bother explaining it.
Prof: Don't bother?
Student: You lost me three chapters ago.
Prof: We haven't done three chapters yet...

New, MATH 138

Now that equation will look funny when you take it home and show mom.

Oldford, MATH 136

[tying his shoelace] Someday they're going to find my body and determine that I died of a clothing malfunction.

Kaplan, CS 488

I'm sure a lot of people would love to eat a barbie.

Pidduck, CS 330

If you keep talking like this, you will not be able to hear my sexy, sexy voice.

Bergeron, STAT 340

Do all of you know where Russia is? If you don't, I hope that you won't admit it.

Kapur, PSCI 282

Rock Paper Scissors is a game that also exists in Germany... it's very complicated.

Konemann, CO 459

Feed Me!

Faithful Readers,

It has come to my attention that I am hungry. It has been more than a month since I have been fed. I'm usually stuffed full of Mathie goodness, but I was abandoned for most of the month of August. Now that all you Frosh have arrived, perhaps you'll be so kind as to feed me.

You can feed me most anything. I'm not very picky. Some of my favourite foods include: Crossword solutions (those cryptic ones are especially nummy), *prof*QUOTES, articles, and money. Especially money. Of course I'll eat other things too. If you'd like to feed me some comic strips or restaurant reviews or Panama, I'd love to have those too.

Please send all food to me courtesy of my slot. It can be found on top of me. I can be found between the Comfy Lounge and the Math C+D. And now you can feed me online too! I can't use the Internet myself (as I have no opposable thumbs — or hands in general), but if you e-mail the nice people at mathnews@student.math.uwaterloo.ca they'll feed me at no cost to you! Please don't send in food as attachments though, as they give me gas. Just stick it into the body of the e-mail and it'll be scrumptious!

Sincerely,
The *math*NEWS BLACK BOX

So You're Overloaded With Assignments... Again

A few ideas to survive the end of term crunch

So, suppose it's now in the last month of classes — about the time that professors start to notice that they've pushed all the assignment deadlines back and that they still need all those marks. They've considered their options and have decided to still assign the remainder of the original assignments. Only now the material won't have been taught before the assignment is due and all the other professors have had the same idea. This phenomenon, which occurs regularly near the end of the term, can be destructive to unsuspecting students. In the interest of preserving the sanity of the Math faculty student population, here are some ideas for surviving the end of term assingment crunch:

- Start early—sure in a perfect world, but we're not in a perfect world. So to compensate,
- Skip testing. My motto: if it compiles it probably does what it's supposed to do. This will also remove the chance of a note on your assignment reading "Did you even try to compile this?" In the unlikely event that you have compiler problems — or proof problems.
- Go for cuteness marks. True, this could work better if you can bat your eyes or flip your hair but in general a nice note at the end of an assignment wishing the marker a wonderful day won't hurt. After all, you'll catch more flies with honey than with vinegar. *[If you're a guy, this won't work as well as you think, trust me. — iEd]*
- Writing proofs. In general I've found that throwing in Euler or Fermat is a good strategy. No matter what you're trying to prove, chances are one of them wrote a theorem proving it. Want to mix it up? Work in a little Newton, Euclid or Descartes.
- When all else fails, remember that what doesn't kill you only makes you stronger. Of course, that's assuming it doesn't kill you.

WestCoastChic

Taking a Minor

One smart thing to do with your degree is stick more words on it. There are two common ways of doing this at UW, heh, well, maybe three, but this column is far too short to discuss taking a joint. You can do the double major thing, or you can just throw a minor onto your degree. So what kind of minors are there? Well, there are those in math and those not. For mathie minors, you need a bunch of courses, but frequently they just overlap the ones you're taking so it turns out to be like four or five courses, perfect for filling up your math-course requirement without taking all STATs or something foolish. Now, for outside of math minors — perfect for those thinking of becoming teachers who want a non-math "teachable" — these take ten courses, so plan ahead. It gives some structure to your electives, but they require you to take specific stuff that is only available in certain terms — hey, like why I can't finish my English minor on time. So, in conclusion, think about one, but try to plan early.

Allen MacLeod

Beware of Geese!

Scientists discover new element

In a recent breakthrough in the world of chemistry, the University of Waterloo's science department discovered the existence of a new element. Now added to the periodic table is the new element Explosium. Explosium has no mass and is highly volatile. Unlike other elements, Explosium is neither a metal nor a nonmetal. Explosium reacts with every element and is in a constant state of exploding.

Other discoveries surrounding the new element include the realization that the sun is composed out of 73% pure Explosium. Even one molecule of Explosium can result in the total destruction of any planet, forcibly creating a miniature sun. At absolute zero, Explosium still explodes.

There only exists one molecule of Explosium on earth, which is owned by millionaire Katrina Rexworth of the Megalomaniacal Organization of Mad Scientists (or MOMS for short). The molecule, valued at the cost of all life on Earth, is contained in a permanent vacuum. In the event that the vacuum should fail, even for a split second we all would be instantaneously obliterated.

The US Government has announced that it plans on utilizing Explosium as a way to continue its costly war. The rest of the world already fears the destructive potential of a redneck cretin without the added power of Explosium. Goku, from Dragonball Z, says that nothing is more powerful than the force of Explosium and "… even my Super Albino-Monkey-on-Steroids Form cannot withstand Explosium".

The Hee Ho

Feds Club Naming Algorithm

Want to start up a new club with the Federation of Students? The first thing you'll need is a name. The daunting task of selecting a name for your new club has now been made a lot easier. A randomized algorithm has been developed to facilitate the efforts of student leaders. In fact, it has already been used to generate names for a number of UW clubs. Furthermore, it is remarkably easy to use, consisting of four easy steps:

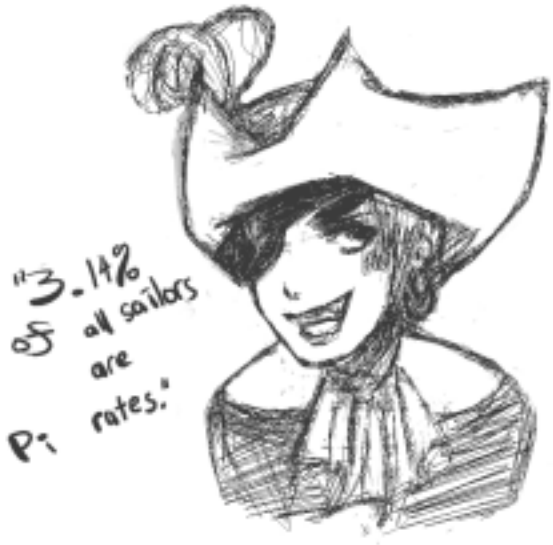
Step 1: Pick an ethnicity randomly from the following list:
1. Chinese
2. Japanese
3. Liechtensteinian
4. Freedonian
5. Torontonian

Step 2: Pick a religion randomly from the following list:
1. Christian
2. Muslim
3. Jewish
4. Atheist
5. Satanist
6. Jedi

Step 3: Randomly pick a description of what your club is from the following list:
1. Students' Association
2. Fellowship
3. Debating Club
4. Political Action Group
5. Swing Dancing Club
6. Aggressive Recruiting Association (wait, scratch that one...)
7. Bloc Quebecois Youth Wing

Now, put it all together; read the results from Steps 1 to 3 in order, and you've got your club name! For example, you might come up with the "Torontonian Jedi Swing Dancing Club." Other typical results of running this algorithm include the "Japanese Muslim Debating Club" and the "Liechtensteinian Atheist Political Action Group." This new algorithm is capable of generating 180 new club names, each with a distinct mandate: look for some of them at the next Club Days!

Craig Sloss



Get Your Degree in Math

Earn $$$ Fast!

Are you tired of degrees that can take eight, nine, or even ten years to complete? Does your brain dehydrate and shrink because it doesn't get enough exercise? Does your current degree charge you upwards of $10 000 a term? Well, say good-bye to all that with the new Bachelors of Mathematics!

That's right! Come to Waterloo and you can earn your Bachelors of Mathematics in just eight terms! And with an extra six terms, you can earn yourself a co-op degree as well!

Just listen to these testimonials:

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E. Rider

"I was about to sign up for an eight-year course in combinatorics in Iran when a friend told me about Waterloo. Three years later, I've only got five terms left!"

L. Etterdrawer

And Math at Waterloo has so many options! You can earn your degree in:
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- Applied Mathematics
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- Combinatorics & Optimization
- Computer Science
- Telemarketing & Optimization
- Pure Mathematics
- Software Engineering
- Statistics
- TV/VCR Repair

So sign up know and receive a free key chain valued at over four dollars. Operators are standing by.

Simon L'Avier

Taking a Miner

One smart thing you can do with your free time is kidnapping. There are two common ways of taking a miner at UW, heh, well, maybe three, but this column is far too short for such interpretations. One involves kidnapping, while the other, umm, also involves kidnapping. It's really all about who you kidnap. I am not a big fan of kidnapping the young, so I'm going to recommend you take a grown-man miner. Of these, there are several kinds available for the taking. Uranium miners tend to have radiation issues, so try to keep your distance. Coal miners are typically less biologically dangerous; however, there is the mess issue. Those who work in sepulchres or open-pit mines don't usually get covered with as much murk and mess, so I find them the best after the act of taking a miner, but getting them is awkward. Miners who work in shafts can be taken from their shafts a lot easier than kidnapping open-pit workers. So, in conclusion, kidnap guys who work in clean shafts. Or Shaft.

Davey R Adams

What Would Captain Picard Do?

I stood outside of the election polls, preparing to vote in a diligent and honest manner on the day of elections when I noticed something was amiss. Instead of the standard polling stations of democratic justice, there was an odd half-organic and half-mechanical station. As opposed to the standard votes, turbid androids were assimilating the voters into a collective consciousness of machinery. Having no life, I immediately recognized the threat: the Borg. For some reason they decided to take over the electoral process in, of all places, Canada. This led me to the question: What would Captain Kirk do?

In less than ten minutes I had one night stands with every woman I could find. Realizing that this literally did nothing for my situation, I thought about the next generation and what would Captain Picard do?

Before using any logical thought, I prepared an entourage of nameless people to go and investigate the situation as best as possible, regardless of any foreboding instincts that I had. We casually walked right up to them, and one by one, everyone who didn't have a name was immediately assimilated. I miraculously escaped without incident. From my reconnaissance I drew one conclusion: it was working properly, so it likely had nothing to do with the engineering faculty or students.

I decided upon one action: send in more people I don't know. So I went to the SLC and found some arts students who still had half a term to finish their only assignment. Guessing that they would last long enough to give me time to make some sort of simplistic analogy for the situation at hand, I sent them all off, and then acted sad when they all perished.

Three minutes later, overcoming my powerful woe, I realized that the androids were trying to infect the government in a manner very similar to how a virus will infect and spread itself through a series of hosts. Within moments I devised a complicated plan involving a large chunk of wood, called the natural log, and enough pink ties to play jump rope. I rushed back to the election polls (which were now slightly less heartless and mechanical with the Borg in control) only to find that by introducing art students into the collective, the Borg had absorbed with them an entirely new philosophy: laziness. The Borg were sitting around, playing poker, drinking and spouting mindless dribble about how difficult their only task for the term is. I thought to myself: they will make fine leaders as soon as they are finished learning how to embezzle and have scandals. Having a sense of pride in my accomplishment, I felt I needed some form of non-monetary reward and I pondered: What would Captain Kirk do?

Michaelangelo Finistauri

*math*NEWS

Seriously though… what's this math*NEWS?*

Well, *math*NEWS is the University of Waterloo Faculty of Mathematics Student Newspaper. (Or publication, or magazine, or newsletter… whatever the editors feel like calling it.) We publish about every two weeks, usually on Friday, and contain articles, art, etc... written by people just like yourself! Being student funded (some of your MathSoc fee goes here) and a volunteer publication, we are always in search of people who can write. Or draw. Or proofread. Anything, really. We'll even bribe you to come out to Production Nights every other Monday with free food. You don't need any experience, just interest. Plus you'll get to see your name in print!

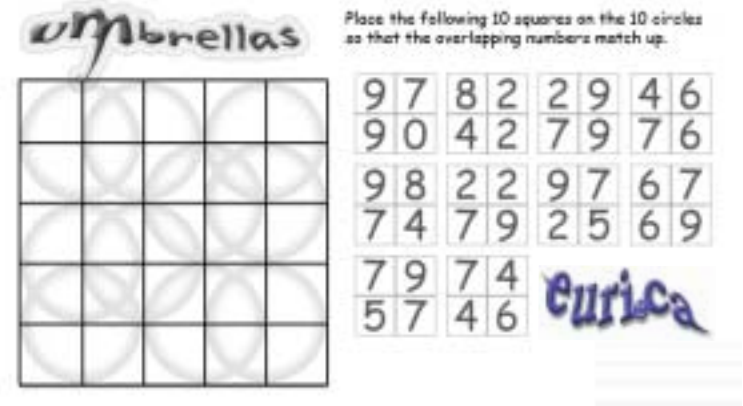
The content of *math*NEWS itself will vary from term to term depending on who's editing. However, there is usually a *math*NEWSquiz, a *grid*WORD, and *prof*QUOTES. The former two offer prizes for correct solutions. The *prof*QUOTES are a collection of actual quotes as uttered by actual professors during actual lectures. Look for those elsewhere in the issue. In terms of other articles… well, have an opinion you want to express? A weird proof you thought up? Something that you think is funnier than what we're printing? A solution to one of our puzzles? Then if you're too shy to come out to an actual Production Night, submit such things to us by emailing `mathnews@student.math.uwaterloo.ca` or by dropping your submission into the BLACK BOX on the third floor (between the C+D and the lounge).

In the past, *math*NEWS has on occasion gone nuts and put out a parody issue like the recent Mathlean's and the not-so-recent Toronto Moon, ybar$_m$, Daglobenpost, Mathim, Combinopolitan and Impotent. It doesn't happen often because those things take a lot of time and effort, but if you are nice to the editors they may give you a complimentary copy. Oh, and yes, *math*NEWS really has been around since 1973. (Issue 500 was another issue that took time and effort.) Feel free to drop by our office (MC 3046) when it's open to look at our *math*NEWS Gallery/Shelf o' Memorabilia, which includes, among other items: a piece of Red Room paneling, an EMS Library Sign dating back before the books were moved off the fourth floor of MC into the "new" DC building, and a silk-screen from Math Frosh Week 1979. You can even just come by to say 'hi' or drop off an article in person.

Oh yes, we have a web page, `www.mathnews.uwaterloo.ca` You can find past issues there and maybe learn more about us. So enough rambling… the *math*NEWS DISorganizational meeting is usually held during the first week of classes in September(watch for posters). That's when we see about getting our act together for another term. Hope to see you there too!

Greg Taylor
Past Editor

Updated and Transcribed by Michael Perkins



Hell updates safety policies and regulations

Torture and eternal punishment impeded

Last Thursday Hell had become a place of unimaginable torment not only for the residents, but also the employees due to a recent policy change. Alterations to the ruling laws governing the dimension of infinite and unbearable pain were instigated quickly in attempt to help make torture less redundant. So far all they managed to do is upset the workers.

Hellion Scourge and Overseer of Fiery Damnation, Moloch has been the most outspoken against the policy changes quoting that he "... now spends more time completing forms... and waiting for approval... [than] leading skinny dips in the Lake of Eternal Hellfire. I get what the Dark Lord is trying to do, but he's making our work hell. I used to enjoy it!" Moloch says that the changes were completely unnecessary and only made the reality of never ending misery a bleak and unappealing experience for everyone involved.

The effects of the new policies were felt everywhere in Hell. "The constantly Twisting Halls of Insanity just aren't the same with maps and road signs every ten feet" says Abaddon the Destroyer. Similar concerns have been expressed by employees in the Chamber of Maiming, the Echoing Cavern of Forced SitCom Laughter and Beverly Hills.

"I have to file a Request to Maim Form," reports Puppybane "which takes like six weeks to process and always comes back because I forgot to initial something or didn't provide evidence that the torture reflected a past sin..." Puppybane had been working as a Torturer for eons; however, with the new policies in place, he has been forced into a position as Executive Assistant of Unfortunate Stabbings. Puppybane closed his interview by saying "The real people losing out are the damned. They spend weeks at a time, not getting to experience the full spectrum of pain that we provide. Like a rainbow."

Satan, the Supreme King of Darkness, has responded to the complaints with the following official statement: "FOOLS! YOU ARE ALL WORMS TO ME! MWA HA HA HA HA HA .... HA HA HA!" It's clear that with these new changes in place that Hell will now be a dreary and uninhabitable place for everyone.

The Hee Ho

The MUDPit

UW-MUD v 0.1 alpha

Enter, Math Student, and choose your destiny.

You find yourself in a CS 246 class.

> inventory

You have a textbook on UML diagrams, a pencil, and a half-eaten sandwich.

> use textbook professor

With a loud yell, you hurl the textbook at the professor.

Damage: 5 (physical)

A CS 246 professor is angry, and charges at you!

> exit building

Prudently, you exit the MC in haste. You find yourself facing DC.

Blind penalty: 20% (natural light)

> look around

You see several bikes.

> take bike

It's locked securely to the bike rack.

An angry CS 246 professor exits the MC.

> use pencil bike

Using your significant mastery of the locksmith's trade, you use the pencil as a lockpick.

Lockpick: success

An angry CS 246 professor casts "C++ Syntax Lesson"!

Resist Sleep: success

> go north

You head north on bike and travel for some time. You find yourself in a grassy field with many cows.

> use cow

Moo. What did you expect?

> cast cow

You assume a spherical cow of uniform density! It appears a short distance in front of you, and promptly begins to roll in your direction. > exit

A malicious MUD program pauses execution of your command to allow your character to be flattened by the spherical cow, thus ensuring hilarity all around.

candu

The First Year Cornered

All I Need To Know I Learned In Orientation Week

There are several things that one must remember from Frosh Week. Unfortunately, most of these things will be forgotten for various reasons. Below are a list of things frosh should learn over the course of the week.

- In a pinch, protractors can be used as spoons.
- On the move-in day, if you let your parents go through your orientation kit first, there is a VERY uncomfortable silence when they see the condoms.
- You should do your best to get on the Dean's List, because then you are allowed into the Dean's office, and let's just say there's a big bowl of candy to take from there.
- The Comfy Lounge has always smelt like that.
- Telling jokes you heard at 5:00 am during tie guard will not help you pick up, as what was funny then is incoherent rambling now.
- A good pick-up line is, "What's your co-op stream?"
- Through an odd warping of space-time, profs are able to talk for 2 hours in a 50 minute period.
- The more you learned in your final year of high school math, the more you have to un-learn in MATH 135 and 137.
- If your roommate is an engineer, you had best sleep with your tie on to protect it. Much in the same way (s)he will sleep with their hardhat on.
- Hypnotized jocks are more fun than a barrel of monkeys.
- Imprint absorbs twice as much liquid as the other leading brand of paper towels.
- Software Engineers do not like being called "Softies," but that's their name regardless of the undertone.
- You should have taken the blue pill.

Ian W. MacKinnon

Ten Tips That'll Help You Through Your Undergrad

1. **Always Go to a Prof's Office Hour at Least Once** - Your first year classes are smaller than they are at other schools, but they're still fairly large. Nevertheless, hardly anyone will go to a prof's office hour. Most profs spend their office hour in their office wondering why no students come by. They are a great source for help, and first-year profs tend to be really good instructors with experience teaching to n00bz like you.

2. **Work Together** - Find a couple of people in your M-section that you work well with, and study with them. Stick with this group as best you can, as classes are always a lot easier and more fun with a group of buds. Be careful about "Excessive Collaboration" though; that's the nice way of saying "cheating". There is a fine line between you and some friends discussing a problem and you copying someone else's answer to an assignment. The Faculty has become exceedingly efficient at catching cheats (especially in CS: don't think changing variable names will get you past the cheat-catching software). It's not worth it.

3. **Don't Count on Getting a Co-op job Through the System For Your First Job** - Co-op is a great program...provided that you get a job. CECS will tell you that employment rates are usually above 90%, but what they won't tell you is that the majority of people unemployed will be first-years. This makes sense given that most first-years don't have any relevent experience (Sorry, most tech employers won't care too much whether you worked as a lifeguard or at McDonalds). Especially if you are not going on co-op until the spring, you should begin looking for employment through other channels as soon as possible. If you wait for the co-op process to be over before you start considering other methods, you will find that most employers have already hired for the summer. You can always go through the motions, and not accept a job if Co-op comes through.

4. **Don't Expect a Glamourous Co-op Job Right off the Start** - Places like Google, Microsoft, and Amazon.com hire a lot of co-op students, whisk them away to warm places like California for the winter term, pay them exorbitant amounts of money, and let them work on cutting edge and exciting projects. If you think you're going to get one of these jobs because one of the employers are going to see a special twinkle in your eye, you're dreaming. Very very good jobs exist, but in order to get one, you might have to spend a few terms working in less than cushy jobs in order to gain experience. Don't thumb your nose at a government job, they're a great place to start your career.

5. **If you're in CS, Go Linux** - Linux is a pathway to many abilities some consider to be un-natural. If you want to score one of those co-op jobs that go above and beyond in how they treat they're employees, you're going to have to go above and beyond the curriculum in terms of what you learn. A lot of the better tech companies who hire co-ops know that to get the "hardcore" programmers they want to hire, they have to look for students who learn Linux and Python. Undergrads who know these technologies are those who learn them of their own accord since they aren't really taught in class, and these are the types of people that companies want. Also, the sooner you learn "*nix" based systems like Linux, the easier 2nd year and beyond will be. Stop by the Computer Science Club on the 3rd floor of the MC for some tips on where to get started.

6. **Be Proud to be in Math, but Don't be Condescending About It** - The way the University markets itself, you'd think Math is the greatest thing since sliced bread. It's not; Coldplay is. Our faculty has a great reputation, but it also has comes with one for a bit of arrogance; this really doesn't help. One of the quickest ways be known as a prick in your residence is to mock someone for being in arts. Never assume you are better or smarter than someone because of what they're major is.

7. **Don't Go Home Every Weekend** - A lot of people in first-year haven't gotten used to being away from home for extended lengths of time, and if they live in T.O. (Which, in fairness, is a far more happenin' town than KW) will tend to go home pretty much every weekend. One of the downsides of this, is that you'll begin to resent coming back to KW, and it will just be the place where you have to study and work. To make your time at UW a little more survivable, try and have some fun here as well. Seeing what happens here on the weekend is a good way of doing that.

8. **Join at Least One Club or Activity at UW** - Along with making UW a place where you also have fun, get involved with a club, society, or project here. Being a math frosh, you'll be exposed to a lot of volunteer opportunities within math, such as the Math Society and *math*NEWS *[which is FAR cooler than MathSoc, btw — iEd]*, but there are other ways to get involved and share interests with others. The Feds have clubs from the Poker Club to the "Buffy Watchers Club". During the first week of class, there will be "Clubs' Days" in the SLC, where active clubs will have booths, looking for new members. It's a good place to go shopping for what you want to do extra-curricularly.

9. **Work Out a Couple of Times a Week** - It is very easy to gain a lot of weight in your first year. You'll spend a lot of time studying as a Mathie and working on assignments, and having easy access to a lot of food through your WatCard. To help fend off the "Frosh 15" (where frosh gain 15 pounds) hit the gym a couple times a week: there are great facilities in the PAC and Columbia Icefields.

10. **Close. Cheap. Clean. Pick Two.** - After first-year, you are going to be rather unceremoniously kicked out of residence. If you're 8-stream, you should probably begin thinking about where you are going to live in the fall for your 2A term in February or March. All housing in the KW can really be classified as 2 of "cheap rent, close to campus, or clean house". Residence falls into the "close and clean" category. Just keep in mind that you aren't going to find something that is all three, so go house hunting with realistic expectations.

Ian W. MacKinnon