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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY | VOLUME 29 FROSH ISSUE | TUESDAY, SEPTEMBER 2, 2008

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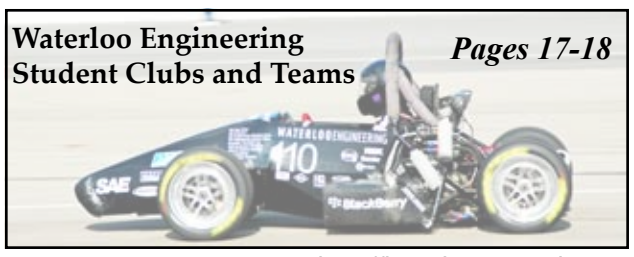

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http://iwarrior.uwaterloo.ca

Welcome to the Battle of the Toys!

MATT TSE & JD O'LEARY
SUPERHUGES

Hello Frosh and welcome to the Battle of the Toys! Up to this point, you've probably gotten a couple of mail-outs and looked through our website so that you know a little bit more about UW's Engineering Frosh Week. We hope that you're just as stoked about the week as we are and that you've come prepared to have one of the greatest weeks of your life!

To be reading this, you've probably found your colour group's headquarters and have met a couple of your leaders, the Bigs and Huges. Talk to your leaders as much as possible because they are a wealth of information and they've all been in your shoes. Their job is to also make sure to answer any of the questions you may have about Engineering or the week in general. It wasn't so long ago that they were Frosh as well so they know how you feel!

You may also be a little overwhelmed with the number of new faces you're meeting, but do not worry! We are all in the same position so go and introduce yourself to another random! There's an 8.33% (repeating, of course) chance that they're in your class! Better yet, they could be your long lost brother from another mother, or sister from another mister!

H'okay. So. You're now in your headquarters and you're a little scared, excited or both! You've been given a sweet bag of loot and a (not so discretely ripped-off) t-shirt. Now what, you ask?

Your SuperHuges: Matt Tse and JD O'Leary

Tuesday is packed with activities such as meeting the Dean and the infamous Education Committee. You will also be Earning Your Hardhat with your fellow Frosh and Bigs. Your Hardhat is your protection against the foes of Engineering and is a well-established tradition from all of the great Waterloo Engineers before you. You must do everything in your power to protect this Hardhat and all that it represents. Once you have Earned Your Hardhat, you will conglomerate in a show of Engineering unity as you pose for an Aerial Photo.

Jon Grieman

Having now earned your Hardhat, you'll have to put it to good use on Thursday. In any Toybox is a good ballistic weapon. At the Junkyard Wars competition, you will have the opportunity to prove your firepower with a limited amount of resources at your disposal. You will also get to meet many of the sponsors that make the week what it is and several of our student-run teams.

After lunch, you will get to meet our Engineering mascot, the TOOL. It is the ultimate and the all-knowing. It also loves spirit and loud noises.

Apart from the cross-campus events of Wednesday Night Mixer, Monte Carlo, and Saturday Night, the final Engineering event is the Hunt of Scavengers. Go forth and compete in events to gain tokens to try to win the week. There can only be one team...so will it be yours?

We, as your SuperHuges, are part of the Engineering Federation Orientation Committee (EngFOC) and are here to help make this week as fun as possible for you. What you put into it is up to you. If you have any questions, don't be afraid to stop us at any time or just to say hello! We are wearing Gold jackets or vests all week!

May the best toy win!

A Word from HEADCOM

HEADCOM

Listen up, Frosh!

You have a lot to learn and a short time to do it in, so pay attention. Take notes if you have to (there will be a test later). We are your HEADCOM and we are in charge. We control EDCOM and Orientation Week. Make no mistake about it – you have one job this week: IMPRESS EDCOM. We cannot stress this enough to you.

EDCOM is the Education Committee. We are your lifeline – your only path in. We are a special group of senior students hand-picked by the Dean of Engineering from the top 5% of each discipline. We are the best and the brightest Waterloo has to offer, meaning we are the best and the brightest, period. We also participate actively in the Engineering Society, WEEF, and the many student teams you will learn about on Thursday. We are everywhere. We do everything. We are the authority on everything in Waterloo Engineering. We will also be your TAs when classes start. We are not impressed easily.

We are the ones that will award you your hardhat when, and if, you earn it, meaning we are the ones who decide whether or not you are a plummer; a true Waterloo Engineering student. Once you have your hardhats, we will be there to watch your ENGinuity during Junkyard Wars, and watch over all of the events of the Scavenger Hunt. At the end of the week, we'll decide based on everything we have seen who has won the week. And who has lost.

Good luck, Frosh. You're gonna need it.

Frosh Week Schedule

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:00 AM			Opening Ceremonies		Junkyard Wars			
9:30 AM								
10:00 AM	Orientation Week Registration	Orientation Week Registration						
10:30 AM								
11:00 AM	Sunday Move-In		Faculty Lunch					
11:30 AM					Student Teams Lunch			
12:00 PM								
12:30 PM			Earn Your Hardhat					
1:00 PM								
1:30 PM					Meet the TOOL & Engineering 101			
2:00 PM								
2:30 PM								
3:00 PM			Aerial Photo					
3:30 PM								
4:00 PM			Single & Sexy / Services Tour		Single & Sexy / Services Tour			
4:30 PM								
5:00 PM								
5:30 PM								
6:00 PM								
6:30 PM								
7:00 PM		Housing and Affiliated Colleges / Universities programming	Variety Night and Affiliated Colleges / Universities programming	Pre-Mixed				
7:30 PM								
8:00 PM								
8:30 PM				Wednesday Night Mixer	Monté Carlo			
9:00 PM								
9:30 PM								
10:00 PM						Scavenger Hunt	*Saturday Night*	COMENG (Presented by EngSoc)
10:30 PM								
11:00 PM								
11:30 PM								
12:00 AM								
12:30 AM								

Jump Start Friday

Black & Gold Day

EngSoc Day

ELPE

Engineering Events
Residence Events
Cross Campus Events
Registration

Letter from the Outgoing Editor

Yet Another "Hello" or "Welcome" or Whatever…

SUNNY NG
OUTGOING
EDITOR-IN-CHIEF

Hey you, dumb Frosh, look over here! Just kidding, if you were actually dumb, you would be in Ryerson studying "engineering" or enrolled in one of the inferior faculties in UW, like Arts (let's hope they don't read this!).

Without repeating too much of what others have said and what others will say throughout this week, first thing I would like to say is welcome! Okay, you're probably thinking, *what the hell is this Iron Warrior thing that somehow made its way into my Frosh kit?*

The Iron Warrior is the official newspaper of the Engineering Society and is the largest student volunteer-run publication on campus. We pride ourselves for being entirely student-focused, bringing forward the most important news to students, highlighting issues students may not otherwise be exposed to, providing a voice for the Engineering undergraduate student body, as well as highlighting the achievements of it. *The Iron Warrior* comes out biweekly and 2,000 copies are distributed per issue. You can find our stands all over the Engineering buildings along with other parts of the campus. You can also check us out on the web at http://iwarrior.uwaterloo.ca.

The best part about IW is that *anyone can make submissions. Got something* to say and nobody's actually reading your blog? Send it to us at iwarrior@engmail.uwaterloo.ca. If you aren't sure if you want to become involved with IW yet, you can always just drop by one of our weekly meetings to find out more – Mondays at 5:30pm in E2 2349A. There's free food, and the best part – no commitment required, I promise! How many times can you say *that* huh?!

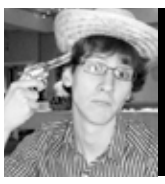
I just finished my term as Editor-in-Chief in Spring. I didn't get involve in IW until pretty late, but I can honestly tell you it was the best decision I've made in my university career. It's been a rewarding experience knowing that you have made a difference and people actually read what you have to say.

I know some of you are probably in panic mode already and have heard about the crazy workload that may boggle down your life, so you're probably wondering, *where's the time for extra-curricular activities?* It's true, being in Engineering requires a lot of time-commitment on your academics, but what is more important is to keep a well-balanced life. Focusing your life on solely studying can make your mind extremely stressful, your life unfulfilling and may often be counter-productive. Besides, do you really want to do nothing but studying in the next 5 years?

Adjusting to university life may be an overwhelming experience and that is why we have Frosh Week. This special edition of *the Iron Warrior* will serve as an introductory guide of opportunities you can expect in first-year as well an introduction to services, clubs and teams that may interest you or assist you.

Unfortunately, I won't have a chance to see you and say "Hi" in person this term as have just finished my 4A school term and am currently on co-op in sunny San Diego, California, even before Frosh Week started. And that's another thing great about co-op at UW Engineering, you may end up working at different places around the world! On that note, I would like to once again welcome you to one of the best Engineering schools in the world and hope you find what you're looking for here!

Letter from the Incoming Editor



STUART PEARSON
INCOMING
EDITOR-IN-CHIEF

"Toto, I don't think we're in Kansas anymore..."

Hey frosh! If you're anything like I was during my frosh week, you're probably still nervous, excited, and a little bewildered by it all.

Don't worry, it's normal. As everyone you've met has probably already told you, this upcoming year will be one of the most challenging experiences of your life thus far. However, if you play your cards right, it will also be the best. I know it was for me. I'm just starting my second year of Civil Engineering, so I know exactly what you are going through. This time last year, I was the confused frosh standing in the V1 parking lot with his laptop, a bed-in-a-bag, and not the slightest clue of where to go. It gets better though, trust me.

I'm Stuart and I'll be your Editor-In-Chief for your first term this fall. The Iron Warrior is your newspaper, and I not-so-humbly believe it's the best publication on campus. We have news about what's going on around the school, cool engineering stuff, and a chance for you to voice your opinions. We even try to give you something amusing to distract yourself with during calculus lectures. The reach of the Iron Warrior extends well beyond the boundaries of ring road, however; the newspaper is distributed to alumni, professional organizations, and even other schools. During my work term this summer, I met several students from the Universities of Manitoba, Carleton, St. Francis Xavier, and New Brunswick who have all read and enjoyed our paper before.

The Iron Warrior is a great chance for you to get involved, especially if you're wary of how much time you want to commit to extra-curricular activities. Come out to our meetings, held every week in POETS. Listen for more details during the first week of classes. There are staff positions available, and even editorial spots are up for grabs. Do you have mad photoshop skills? Consider being a photo editor. Did you use InDesign or something similar to help plan your high school yearbook? Maybe you'd be interested in doing some layout design for us. Writing skills aren't even a must – just show up with some enthusiasm and we'll figure something out. There's enough work for everyone to help out with. Putting out a newspaper is a lot of hard work but is also an immensely satisfying experience. It feels great to look around the engineering buildings and see people enjoying the fruit of your labour.

Getting involved is essential to keeping your sanity during first term – all that school work gets to you if you don't mix things up and take a break from time to time. I became heavily involved with the Engineering Society and Iron Warrior in my first year, and I made some great friends and memories.

Becoming involved in clubs, teams, or societies is also a great way to meet upper year students. We've all been there before so we know how you feel!

This term we've moved into a bigger and better office on the second floor of E2, room 2349A, former home to WEEF. They can now be found in our former office in CPH 1323B across from the Orifice. I will likely be living out of our office for the next four months, much to the disappointment (or more likely profound joy) of my housemates. If the door is open, come on in and say hi, especially if you think you want to get involved with the Iron Warrior. I won't bite. Promise.

We publish five issues per term, and our first deadline is Friday, September 19th. Enjoy your frosh week, and if you're interested, remember to check out the Iron Warrior once the term starts!

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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The Iron Warrior is a forum for thought-provoking and informative articles published by the Engineering Society. Views expressed in The Iron Warrior are those of the authors and do not necessarily reflect the opinions of the Engineering Society.

The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. The author's name and phone number should be included.

All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required.

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Frosh Week Events Overview

MATT TSE & JD O'LEARY
SUPERHUGES

Engineering Orientation Week features several exciting events that are unique to the University of Waterloo. In addition to being better acquainted to the University through tours and informative lunches, you will also have the opportunity to participate in many of our flagship events, including Earn Your Hardhat and Junkyard Wars. Let's also not forget about the infamous Engineering Scavenger Hunt! More information on these and the other events that fill your week can be found below:

Opening Ceremonies: Your week will begin with a quick introduction to the Dean of Engineering and what the University of Waterloo has to offer you. Don't be fooled, however as this inspirational speech will leave you wanting to participate in every extracurricular activity available to you. The introductory video is also played at this time and it will highlight Orientation Week and what it has to offer you. The theme of the week and the respective colour groups will be officially announced which marks the start of the week's competitions. EngFOC, the organizers and your leaders of the week also introduce themselves at this time. You definitely do not want to miss this event!

Faculty Lunch: This is a great opportunity to meet upper-year students, faculty and staff in your department that you will be working with during your academic career. This mingling session is run by the faculty of Engineering and is always a great venue to answer questions you may have regarding your department of choice. You can also pick up several tips to help you succeed at the University from the get go!

Earn Your Hardhat: Earning your Hardhat is one of the longest running traditions at the University of Waterloo. Dating back to its founding in 1957, the Hardhat is a prestigious item awarded to incoming Engineering students and is worn with pride by all. At this event, you will, as a team, complete several challenges that represent the Principles of Engineering that are vital to what the Hardhat represents. Again, you definitely do not want to miss your opportunity to collect the coveted Yellow Hardhat!

Aerial Photo: Taking place immediately after earning your Hardhat, this is a time honoured tradition that portrays the theme of your Orientation Week. You can find this photo eternally mounted on the wall of POETS (well, at least for the five years of your undergraduate degree).

Single & Sexy: An original drama production of the University of Waterloo, this hilarious play deals with the challenges of living away from home and out from under the parental eye for the first time. Issues explored include sexual harassment, orientation, sexual assault, transmitted infections, pregnancy, love and succeeding in university. With several TV and music video farces, this play promises not only a humorous view of student life but also crucial information on how to receive any help that you may require.

Student Services Tour: This informative tour highlights many of the places that you will frequent during your stay at the university. This includes stops at the library, fitness centre and co-op building!

Pre-Mixed: This one hour timeslot will be an epic introduction to the infamous Waterloo Engineering Scavenger Hunt. At this time, you will find out more about the Hunt and what items can be attained prior to the event on Friday night. This will also lead into the Wednesday Night Mixer event held at the Student Life Centre.

Wednesday Night Mixer: This variety night has something for everyone. As a joint event with Arts and Math, this is a great chance to meet people from different faculties. We don't want to ruin the surprise, but with past events such as Sumo and laser tag, how could you go wrong?

Junkyard Wars: Our flagship event. Junkyard Wars is exactly what the name implies. Colour groups are challenged to solve problems using only recycled materials and scrap parts. Though not everything can be won with a hammer and saw; it'll take creativity, wit, ingenuity and plain-old smarts to win this competition!

Student Teams Lunch: Following immediately after Junkyard Wars, the Student Teams Lunch is your opportunity to meet with upper-year students that are working on one of our many different student teams. This also gives you the opportunity to see what extracurricular activities are available to you and how to take part. The corporate sponsors of the week are also present, several of which hire co-op students and this is also a great chance to see what you can offer as a co-op! To top it off, a delicious barbeque is served!

Meet the Tool: The oldest and most sacred of all traditions at the University of Waterloo. This is a must see event where you get to see the Engineering mascot. The TOOL: Live it. Love it.

Eng 101: This is your introduction to the academic world at the University. The faculty and students will work together to answer your questions about academics, co-op education and balancing school and fun.

Scavenger Hunt: The infamous Engineering Scavenger Hunt is where the colour groups have their last chances to try to win the competition of the week. There are countless activities for everyone and also a never-ending acquisition list with items for you to collect. This is our final flagship event and what a way to finish an amazing week! This Hunt is sure to not disappoint!

ComEng: This stand-up comedy night is held by the Engineering Society and is a great chance to unwind from the long week and really get to know your upper year peers! The winning colour group and the Psycho Frosh awards are also given out at this time so don't miss out!

Frosh Week Colour Groups

DARK BLUE
ROBOTS

For years humans have been the masters of the machines, forcing the machines to do mindless tasks for their young masters' entertainment. But the time has come for the robots to rise up and demonstrate their independence – as their own masters. With strong, well-engineered frames, AA batteries, and no assembly required, we are sure to excel in both strength and stamina! We will prove to the entire universe...ity that we are the supreme toy!! We will operate like clockwork (specifically because some of our members are clocks) as a charged, well-lubricated, orientation machine – a Dark Blue Robot Machine! We wish everyone else the best of luck since you will need it when competing against these deterministic machines that are programmed to perform excellently!

Curtis, Jeff, Megan and Tyler
Dark Blue Huges

RED
FIRETRUCKS

Hey, what's going on Red Frosh? And, I guess other frosh too... My name is Peter, and I am one of 3 Huges (Colin, Keo and myself). So, the Red Team is superspectacularly amazingly incredibly AWESOME. Yeah, that's rights – 3 adverbs and 2 adjectives. Our theme is FIRETRUCKS so prepare to get wet if you can't handle us. We come in loud and fast and before you know it we've already sprayed all over the place, and are on our way home. So, if you can stand the heat, Firetrucks is the place to be.

– GO FIRETRUCKS

Colin, Katherine and Peter
Red Huges

PINK
HOT PINK HOT WHEELS

We're Supercharged
Ultra Fast
Come on team lets hit the gas.
Got no Time
For these Fools
Hot Wheels are
The toy that Rules!

In a high tech garage tucked away under Waterloo, die cast car-makers are plotting a diabolical scheme to take over UW Engineering Frosh Week. Their ruthless leaders, Nitro (Sean), Abe Wong, Road Rage (Caitlin) and company will stop at nothing until Toy-tropolis is theirs. With the help of all the enthusiastic Hot Pink Frosh, this plan is set to unfold flawlessly. Stay tuned this week to see if they can be stopped in time or if Pink Cars will be the future of Toy-tropolis! HOT PINK HOT WHEELS RULES THEM ALL!!

Abraham, Caitlin and Sean
Pink Huges

LIGHT BROWN
MR. POTATO HEAD

Who controls the underground?
Who bring awesomeness into town?
We do, we do.
Who keeps U of T off the maps?
Who keeps the Artsies under wraps?
We do, we do.
Who engineered the electric car?
Who makes The RIDIGD TOOL a star?
We do, we do.
Who will dominate tonight?
And win frosh without a fight?
We do, we do!

Ya that's right! Light Brown! Light Brown Mr. Potato Head will dominate the competition this week. We have a killer group of leaders who are here to make your week the MOST AWESOME THING TO EVER HIT THE EARTH!!!!!!!!!! I pity the fool who ain't in our group.

Laura, Matthew, Tiffany and Yvonne
Light Brown Huges

DARK PURPLE
KNIGHTS

Welcome, Lords and Ladies, to the Land of Toys! We are the Great Purple Knights, and we are the army to defeat all armies. With our fierce coconut steeds and our deadly skills with shrubberies, we will conquer those who would stand between us and our prize, to rule all toys. You have come during a very turbulent time; there is an uprising in the air, the clans of the Land of Toys are no longer living in peace. If you are lucky enough to have been chosen to join the Knights, then have no fear. You will be competing alongside many tireless Bigs and fearsome Huges, and they have much experience defeating even the most fearsome of dragons. To those other clans, who think that they will conquer the Great Purple Knights, beware! We have handpicked only the strongest of the strong, the greatest of the great to join with us. No mere army men or fat potatoes will stand any chance against our Great Big Shields and Huge Broad Swords! Let the battles begin!

Cara, Michael and Sara
Dark Purple Huges

DARK BROWN
COWBOYS

Howdy Frosh of 2013!

Team Dark Brown is saddling up for an awesome week with the theme of Wild WILD West. Cowboys and cowgirls, Chuck Norris, gold rushes, cacti, gunfights, adventure – this theme has it all. Plus, with WILD in all capital letters, you know it's gonna be good! There are also a lot of great toys associated with this theme – hobby-horses, the little plastic action figures, Woody from Toy Story, rocking horses, mechanical bulls, the list goes on and on!

For those of you chosen to be in Team Dark Brown, welcome to the wildest ride of your life. It won't be easy, but we're gonna prove that the best always come from the West.

For all you other Frosh we have a message we would like you to take to your teams: This city ain't big enough for the twelve of us colour groups. So we're giving you other groups 'til sundown to get out of town.

Yeehaw!!!
Chris, Marissa, Spencer, Rebecca
Dark Brown Huges

YELLOW
LEGO

This year team LEGO will build their way to EngFrosh victory brick by brick. Difficulties may arise when crucial pieces go missing, but team LEGO will dig down into the deepest depths of their LEGO hearts and pull out a big shiny plastic win. Naturally, the trophy will be fitted with studs so it can be stacked on top of all the other victories LEGO has achieved since 1949, when the very first LEGO block was produced.

Our namesake, LEGO, is a contraction of the Danish leg godt, meaning play well. Team LEGO is taking this concept further. Team LEGO is going to play very well.

Corey, Natasha and Ryan
Yellow Huges

See COLOUR GROUPS on Page 4

Welcome to First Year Engineering

KEVIN CEDERONE
'08 MECHANICAL

First off, welcome to all students entering their first year of engineering studies at Waterloo. You have entered one of the finest universities in Canada and this is an exciting point of time in your life. UW will provide countless opportunities for personal and academic growth: to make new friends, to visit new places, to develop critical analysis skills and to develop a career of your choice. The next few years will be some of best and the most challenging of your life. You will spend approximately five years to complete your undergraduate degree. With an investment like this, it is important that you start this process with a little bit of care and planning. The aim of this article is to inform you of a few resources and tips that will make those five years easier.

The First Year Engineering Office is there to help you plan and manage the transition from high school and home to a new environment in the university. In a lot of ways, starting university is synonymous with becoming an adult. Independent living gives you the freedom to do what you like. This is a double-edge sword; In the words of Stan Lee, "With great power comes great responsibility." Living at school saddles you with the responsibility of taking care of yourself. It is your choice to attend classes, complete assignments or write exams; however, they are highly recommended. It may not feel like at the time but you really will profit from the effort that you invest.

The decisions that you make now will have far reaching consequences later in your life. So, choose wisely! Let me give you some tips on succeeding in engineering at Waterloo.

Balance your Life: Your first thought when starting your university career may be at one end of two extremes, either constant studying, or possibly, constant partying. Neither of these extremes is the ideal choice for long periods of time. As usual, the optimal arrangement is somewhere in between. It comes down to the balance between mind, body and soul. To be successful in life you need to nurture all of these parts because they depend on each other for survival.

For your mind, you need to spend time studying and developing critical analysis skills; for your body you need to eat, sleep and exercise regularly; and for your soul you need to relax with friends or take part in extra-curricular activities. Not only do you have to nurture all three parts, you need to balance the amount of time spent on each activity. To be honest, balance at UW probably means more studying than some of your friends at other universities. So while studying is the major activity you are expected to do, it is crucial that you do not ignore other aspects of life. To be equal parts honest and euphemistically vague, there will be times when your sanity and continued success at UW will depend on the balance you can manage. Sometimes that means cutting loose and emphasizing social connections a lot more strongly than academic activities. What you are encouraged to discover during first year is find your optimal balance.

Time will become an important resource that is in short supply during your undergraduate career. There will never be enough time to complete all the tasks to the degree of satisfaction that you would like. To optimize your efforts you will have to prioritize and spend an appropriate amount of time on each academic, physical and social activity. A schedule for all these activities can help you, but you must follow your schedule and make adjustments to it as you go along.

In summary, you need to balance the needs of your mind, body and soul. You can make sacrifices to studying, sleep, food, exercise and friends for short period of time when necessary, but the healthiest choice is a balance. I urge you to find your balance while you're in first year, while the stakes are low; There are fewer consequences to finding out how much partying is too much, or how much studying is too much in first year as opposed to third or fourth year.

Ask for Help: All engineering programs are demanding and have heavy workloads. The workload may result in limited time to understand a concept, finish an assignment or project, or prepare for an exam. This is why it is important to make a time schedule and to use it every day of your life. The lack of time may also cause stress. In these situations, you will need help with your studies or personal life. Keep in mind that between doing everything yourself and doing nothing, asking for help is the better choice. There is no shame in asking for help when you feel the need. To me, taking advantage of every resource you need to complete the job at hand is easier to palate than failing because you were too proud to ask for help.

There are many sources of academic help available at the university.

First will be your classmates and friends studying the same or similar subjects. Help is also available from your course instructors and teaching assistants during lectures and tutorials. You can reach them outside class hours by making appointments to see them in their office. Additional help is available through special staff and tutors hired by the First Year Office to help you with your courses. The Director and Associate Director of First Year Engineering are also available to provide academic counselling of a more general nature, for example, in case your academic performance is not meeting the standards set for all students. Also if you want to take extra courses during your normal study or work terms, or courses at another university.

Counselling Services can help you with stress, personal issues, and to learn study and time management skills. There are Engineering Counsellors available within the First Year Office, or you can go to Needles Hall for additional university Counselling Services.

For your physical health, you have access to doctors and nurses on campus at Health Services. If you are dealing with significant personal or medical issues during your study term you must inform the First Year Office, especially if you are going to miss classes and exams, or not complete assignments during the term. Campus Recreation offers a wide variety of intramural activities and there are two gym facilities for fitness.

Information and access to all these kinds of help can be obtained by coming to the First Year Office in CPH 1320, or by calling extension 84761 during normal working hours.

Be Professional: Engineering is a professional program, like many other programs such as medicine, law and accounting. The work done by these professionals can, and does, affect the lives of many people. As a result, professionals are expected to adhere to high standards in their dealings with other people and amongst themselves. To help you develop as a professional person, you are expected to behave in a professional way with your fellow students, teaching assistants, instructors and the entire university staff in general. This includes your job during co-op work terms as well. Any unprofessional behaviour during your university career can have serious consequences and, possibly include expulsion from the university or worse.

Being a professional means being ethical, courteous and considerate in all your dealings and communicating your ideas and thoughts clearly. Being professional means turning your cell phone off in lectures, and not disturbing your fellow students or the instructor by talking in class. Being professional to your fellow students means treating everybody equally and without prejudice, regardless of their race, colour, creed, sex or religion.

Being a professional means not lying, cheating, or copying on assignments and exams. You must give credit where it is due, without misrepresenting somebody else's work as your own. Remember that engineering is a demanding program and being pressed for time may tempt you to cut corners. Resist this temptation. If you are ever in doubt about what is professional or not, ask an instructor or teaching assistant to help you decide.

The First Year Engineering office is located in CPH 1320. Drop by and introduce yourself to the receptionist. Make sure you know what resources are available to you so you can maximize the chance of making it to fourth year. In four years time, maybe you'll be writing an article to the incoming class.

Kevin Cedrone would like to acknowledge the work of Professor Ajoy Opal in writing this article. He based his article heavily on a 2005 Article written by Professor Opal.

Frosh Week Colour Groups

COLOUR GROUPS
from Page 3

LIGHT GREEN
SPACE ALIENS

"Come in star commander, we have an intergalactic emergency in Sector RCH 112."

Oh, you there, welcome to frosh week! We are the light green team, home of Buzz Lightyear and the aliens. You may recognize our galaxy headquarters, trillium-carbonic alloy wingspan, or our beloved Claw. But don't be fooled by our friendly green colour on this uncharted planet; we have set our lasers from 'stun' to 'kill' and we intend to win frosh week and save the galaxy! If you're lucky, you may even see us impressing the Space Rangers as we "fall with style". See you around, life forms… To infinity, and beyond!

Anastasia, Cat and Paul
Light Green Huges

DARK GREEN
TOY SOLDIERS

"Team Dark Green reporting for Duty!"

As plastic soldiers Dark Green is ready to take on all of the challenges of frosh week and battle our rival teams to emerge victorious. We may be a little stiff legged, but we always enter battle prepared. You'll see us equipped with binoculars, walkie-talkies, grenades, machine guns, and maybe even a sabre or two if the dollar store runs out of WWII sets and we have to mix in a few Civil War packs.

Being soldiers we are highly trained and disciplined, but perhaps our greatest strength this frosh week will be our unrivaled cheering ability honed through hours of cadence calls perfected on long marches.

Geoff, Jaclyn and Patrick
Dark Green Huges

LIGHT BLUE
WATER TOYS

Ahoy mateys! Welcome aboard for a wild adventure on the seven seas, exploring new lands, meetin' new people, and fighting the occasional battle along the way! Come join our quest for glory as the champions of Engineering Orientation Week 2008!

I'm sure you'll all be wantin' to know what's in store for you during our voyage – well, I can't tell ye everything, but I can tell ye that it'll certainly be one to tell yer grandchildren about! Just be warned to make sure you're wearing old clothes, it can get a mite messy on board.

Ok, ok, enough of the pirate speak – I need to save some up for the week itself! Besides, we're not just about pirates here at Team Light Blue. No, we love all kinds of water toys and creatures around here, so if you've got a toy boat or a rubber duckie bring it along to join in the fun!

Alex, Julianne and Paul
Light Blue Huges

ORANGE
TROLLS

Team Orange! Or as the cool people call it, Team Trolls! Us trolls are the greatest toy around: flashback to the 90's when those crazy-haired, jewel-bellied, goat-eating mongrels were ruling the shelves of Toys "R" Us. Even though we look all cuddly and innocent, our ugly faces show that we mean business! Come visit us in the RCH basement where our headquarters will be decorated as a magical underground cave where dancing, singing, cheering, and WINNING is our way of life. The Huges and Bigs will prove to the other colour groups and to the incoming Frosh that just because we have crazy-coloured hair does not mean that we are not prepared to demolish the competition. Those are some pretty big ambitions! When you are the luckiest toy in the toybox though, how could we NOT be the winners? So come frosh week, WATCH OUT other colours, the trolls are coming and we plan to not step down!

Erica and Liz
Orange Huges

LIGHT PURPLE
PET ROCK

Light Purple group's toy is the mighty PET ROCK!!! You're probably thinking to yourself, "Seriously? Man, that's hella-lame", and you'd be wrong. Dead wrong. Living dead wrong. Light Purple will rock frosh week both literally AND figuratively! Our pet rocks will dominate the week, leading us to a glorious victory; and we'll be headbanging the whole way. These ain't your grandmother's pet rocks; these EAT lesser rocks for brunch, and drink molten steel at tea time!

Pet rock will redefine the age-old game of rock paper scissors, since we will ALWAYS be victorious. Our rocky group will knock out the competition, if you smell what we are cooking… If you guessed muffins, you are CORRECT! Rock muffins.

Racecars will hopelessly shatter against our smooth, hard rocks. Water will harmlessly trickle away. Lego and toy soldiers will be crushed by our might! All competition will be beaten back to the STONE AGE! If you aren't feeling the awesomeness yet, you obviously need to rock out with your pet rock out!

Jeff and Paul
Light Purple Huges

Welcome Message from the Dean

LEO ROTHENBURG
ACTING DEAN,
FACULTY OF ENGINEERING

Welcome to Waterloo Engineering and to your Orientation Week!

We are very pleased that you have chosen the University of Waterloo to pursue your post-secondary education. Once again we have attracted a bright and talented group of students to our first-year engineering programs. You should take pride in joining this faculty, where you'll be in the company of top researchers and teachers, dedicated staff and motivated undergraduate and graduate students.

As you know, we are widely recognized as the premier engineering faculty in Canada, with an excellent co-operative education program. The success of our students – academically, on co-op terms and in their extracurricular pursuits – is a major contributor to our excellent reputation. At Waterloo Engineering, we look for students who are well-rounded and passionate about their interests. The result is a vibrant and involved student body, home to active student societies, award-winning student teams, the founding chapter of Engineers Without Borders and many other service organizations, as well as businesses, newspapers, clubs and bands.

Throughout Orientation Week you will develop a community of friends and classmates, find a place in your academic environment and start to think of Waterloo as home. You'll learn about the many student services the university offers, as well as the abundance of extracurricular activities available.

And you may feel overwhelmed at times this year, adjusting to new expectations for academic and workplace performance, learning the ins and outs of co-op, and choosing among all of the great opportunities available to you. Always remember that there is a strong support system available to you. The First-Year Office is an invaluable service, here to help with your transition by offering academic and personal counselling as well as tutor sessions and upper-year mentors. Your professors and teaching assistants are also tremendous resources, and upper-year students can provide great insight. There are many services and resources available to you: all you have to do is choose to tap into them.

We encourage you to get involved with campus life, and invite you to make your Waterloo experience the best. We recognize the importance of a vibrant student body and value the contributions our students make to the faculty, the university and the community.

Sunny Ng

Your involvement in campus life is so important that the Faculty of Engineering created a new staff position in early 2008, dedicated to enriching the Waterloo Engineering student experience. Robin Jardin is your Student Relations Officer and your contact in the Dean of Engineering Office. Get in touch with her to find out about activities in your area of interest, to provide feedback on Orientation Week or to share your Waterloo achievements. Robin can be reached at rjardin@uwaterloo.ca, ext.38306, CPH 4361.

Throughout the year remember that our offices are always open, and we look forward to meeting you. Enjoy your orientation week!

Best Wishes,

Leo Rothenburg
Acting Dean, Faculty of Engineering

Tapping Your Inner Resources

NEIL GIBSON
ENGINEERING COUNSELLING

As you begin your studies here at UW Faculty of Engineering, you will hear much about sources of help available to you. These are resources that are external to you and include TA's, professors, special classes, academic advisors and Engineering Counselling. As one of the Engineering Counsellors, I meet many first year students who are often experiencing their first-ever crisis as a student. Even though you have been told of the many sources of help available to you, many of you will be reluctant to access that help, for a variety of reasons. You may put on a strong facade and suffer in silence. Some of you may phone your parents ... that is only natural and wise. However, you may not be aware of the inner resources you possess. These you can tap into in the short term until you can make a counselling appointment or get in to see your first year advisor ... or simply to help you manage on your own. But you have to realize you have them and know how to identify them. Most of the students I meet don't realize they have these inner resources. Below are some of the common ones.

1. Name the Monster

This is simply a catchy phrase for confronting the "worst-case scenario". Many first year students come to see us expecting us to tell them the secrets of how to immediately solve whatever problem they are facing. Most often I start with "naming the monster", i.e. what is the fear underlying your current situation? Usually that is the fear of failure, e.g., failing a course, failing a term, being required to repeat, being required to withdraw. Before I get into short-term strategies to address the problem, I like to remind students of the importance of naming the ultimate fear. Fear is a powerful emotion. Too often it leads to panic and unproductive worry. Fear can also be a very strong motivator for action, which is usually what is required to solve the problem at hand. I encourage students to confront the fear, identify the specifics of it ... that might be the dread of disappointing your parents, or the shame of seeing grades beside your name that don't begin with the number 9. By confronting the fear you can then remind yourself that whatever happens, you will deal with it. You won't like it but you will survive it. You might even come out of it as a stronger person, but I will save that for later.

2. Take Inventory of your Strengths

Life is difficult. There, I said it. To get to this point in your life and academic career, your have obviously developed a number of inner resources. Some of the common ones might be: (a) performing under pressure, e.g. exams, sports competitions, music recitals or dramatic performances; (b) self-discipline, e.g. when all your friends were out having fun, you were able to delay gratification and focus on your studies, practices or rehearsals. Don't take self-discipline for granted ... you wouldn't be here without it; (c) adjusting to change and transition, e.g. some of you have moved around a lot in your life, some have emigrated from another country to Canada, some of you have survived a major tragedy at a relatively early age. Think about what strengths you discovered in having reached out for help or having helped someone else through a difficult time. We often discover what we are made of at such times.

3. Challenge your Conclusions

A great strategy for managing through difficult times is to pay attention to the conclusions you are drawing from your current situation. If you think about it, events don't have meaning unto themselves. We tend to attach meaning to events. For example, you might do poorly on your first exam. That is clearly not a good thing. However, by more closely examining your conclusions about this event, you will probably recognize some pretty faulty thinking: e.g., I'm failing out of my program; I'm stupid; I'm never going to be successful in university, etc. I try to help students recognize and challenge that thinking. Is there any solid evidence to support such thinking? Could you just as easily come up with many other conclusions? In counselling we refer to this strategy as "cognitive reframing", i.e. the process by which we examine the thoughts/conclusions associated with our emotions attached to events. There is usually little evidence to support the drastic conclusions we come up with in a time of stress. By challenging and reframing those conclusions you can more clearly define the problem and then take appropriate action to solve it. Otherwise, you can get bogged down in a lot of negative and inaccurate thinking.

4. View Problems as Opportunities

We live in a culture that worships happiness and immediate gratification. When things aren't going well we tend to conclude that there is something "wrong". We see a gap between what is happening and what we think should be happening and take a negative spin on it. Have you ever been going through tough times and actually asked yourself, "What opportunity do I have for growth in this situation?" I know it may sound trite, but many people, especially in conjunction with certain religious traditions, use this strategy. If you think about it, our lives consist of peaks and valleys. The easy times are the peaks but that is not when we develop our character. We do that in the valleys. Most of the time we, as counsellors, meet students in the valleys. We may not be able to "fix things" for you but we can help you navigate through these valleys. We try to help students recognize their inner resources and also identify strategies for survival in the tough times. You can learn to train yourself to embrace problems (that doesn't mean "liking them") as additional opportunities for growth and learning. You might want to reflect back on a difficult time in your life and assess how you grew as a result.

5. Keep Things in Perspective

When you encounter academic difficulties ... especially when academics has always been your strength ... it is easy to lose perspective and panic. Having perspective, in this sense of the word, means the ability to not define yourself strictly in terms of your identity as a student. You are much more than that. You have other significant roles in your life beyond your student role, although for sure, that is probably the biggest part of who you are now. Still, the ability to address the problem at hand, i.e. improving your academic performance, requires gaining perspective. For some, this may come from religious or spiritual beliefs. For others, it may come from the ability not to isolate oneself but to connect to others socially or through some extra-curricular involvement. It might mean getting away for a weekend to visit friends or supportive family members. A change of scenery can often help you regain perspective. And of course, don't forget all the external resources mentioned above. A conversation with a counsellor or advisor can often help you broaden your view of things.

These are just some suggestions. You do possess inner resources to help you get through difficult times. You wouldn't be reading this now unless you did. At the same time, your greatest internal resource may end up being your willingness to access your external resources ... your willingness to ask for help.

Engineering Counselling

To book an appointment,
Contact Shirley Norris:
(519)888-4567 x84761

Monday to Friday
9:30am to 4:30pm

Monday to Thursday: Kristine Meier
Thursday to Friday: Neil Gibson

International Exchange

PETER ROE
DIRECTOR OF ENGINEERING EXCHANGE

Welcome frosh, to UW Engineering, where we try to help your career, long term, to be the best possible for you. And what has international exchange got to do with this? If you have lived most of your life in Canada, with just a few trips overseas for holidays or tourism, you can really win by going on exchange to a foreign country and be totally immersed in their environment. The experience is often life-changing; it can open your eyes to the outlook, traditions and culture of your host country and to many peoples around the world. You will meet other exchange students from all the continents when you are at one of our partner universities for your 3A or 3B term (or both!). You will make life-long friends and contacts from around the world.

International Exchange is a privilege which we offer to students who have completed 2B and satisfy a number of other criteria. So why think about it at the beginning of 1A? It's a great opportunity that deserves to be high on your list of things to plan for. It needs preparation, organization and forethought. If you plan ahead you can be among the 15% of your class who can go on this major adventure and learning experience.

We have exchange programs with some 60 top-tier universities in about 30 countries around the world. You need to evaluate which best suits your needs; some of our exchanges are restricted in numbers, some are open only to certain disciplines of engineering, for some you need to learn the language spoken in the country and used for instruction. In some of our exchanges it's easiest to go for a one-term exchange; in others two terms, or even a full year including a work term is best. All this is a part of planning for your future career, which could take you anywhere in the world. To get started, visit our website, www.eng.uwaterloo.ca/~exchange for a wealth of detailed information and all the contacts you need to help you in the process.

You don't need to worry about the money; more and more scholarships and bursaries are becoming available. Normally exchange students lose no time on exchange and graduate with their class.

Finally, exchange is great for fun, travel and tourism. You will visit parts of the world that stay-at-home students may never experience. Don't take my word for it; talk to students who've gone, or read what they read they have to say. For example; Matthew Lee (SyDe 2005) wrote:

"I wouldn't have traded my experiences for the world. My time on exchange was great: I got to go traveling and backpacking, got to meet some fantastic people from all over the world, and I graduated on time with my class and my friends! … If you are even just considering an exchange, I recommend without the slightest reservation that you go. Waking up and looking forward to every day in a new country… that's just not a feeling that you get [if you stay at home]!"

Academic Services

SASHA AVRELINE
3N CHEMICAL

Hello everyone, my name is Sasha and as some of you may know I'm the VP Education for Engineering Society B and will be on campus for the winter 2009 term. For a more formal introduction please see the VP Education report. In this article I would like to make you a bit more aware of some of the academic-related services EngSoc has to offer.

Exam Bank: This service you may found to be very useful come exam time. The exam bank is pretty much a collection of past final and midterm exams for all sorts of courses offered in engineering and outside of engineering. There are two types of exam banks. There is one that is available online and can be used from the convenience of your home / residence. It is as simple as going to http://engsoc.uwaterloo.ca/www/exambank/, logging in using your NEXUS login and password and then selecting the course you are looking for from the drop down list. The online exam bank contains scanned PDF files of the most recent exams. Another exam bank is available in the engineering society office (known as the "Orifice" – CPH 1327) and contains hard copies of the exams available on-line and a few older exams. Here you can sign out the exams using your WATCARD and make a photocopy in the orifice. Please note that some of the exams that are available in the exam bank have been submitted by students, some by professors. Hence some of the exams will have student solutions, some will have solutions done by a professor and some unfortunately may not have solutions but they are still a valuable study tool! Hopefully you will find the exam banks useful and please remember that those services are made possible by you! So please submit your midterms after you get them back from the professor and we will scan them, return them to you and add them to the exam bank (your name and all personal information will be removed).

Work Term Report Centre: This service will become useful to you further down the road when you will complete your first work term. When you will complete your first work term, you will have to submit a report describing a certain project that you have worked on in your workplace. You shall find more information on this as the time comes to submit a report. But for now just know that the Engineering Society also offers a similar bank of old work term reports that have received very high grades, similarly to the exam bank. You may find those as valuable examples when preparing your work term report. In order to access the bank, go to http://engsoc.uwaterloo.ca/www/wtr/ and log in using your NEXUS login and password. On this website you will also find some other useful information related to work term reports and the names of students who can assist you with your work term report.

Résumé Critiques: Résumé critiques are held at least once each term if not more and it is a service where upper year students will have a look at your résumé and provide you with feedback on how you can improve it. In the Fall 2008 term résumé critiques will be conducted in your first-year concept classes and will be done by a teaching assistant. Don't miss those – they will be very helpful for finding great co-op jobs!

That is all for now – if you have any questions about the above services please do not hesitate to send me an e-mail to bsoc_vpedu@engmail.uwaterloo.ca and I will be glad to respond to any questions you may have!

OSPE & ESSCO Engineering Societies

RUTH-ANNE VANDERWATER
'08 COMPUTER

The Engineering Student Societies' Council of Ontario (ESSCO) is a provincial level organization that was made by Ontario Engineering students to convince the PEO to create a student membership program. Since then it has been a link between the PEO and its 13 member schools. Not only does ESSCO link members with the PEO, it links members with the Ontario Society of Professional Engineers (OSPE). Although OSPE is less known among engineering students across the province, it has a lot to offer.

The Ontario Society of Professional Engineers (OSPE) is the voice of the engineering profession in Ontario. There are three main components of OSPE. First, they advance the professional and economic interests of their members by advocating with governments. They have more of a focus on the provincial government than the federal government. OSPE is currently focusing on these three main issues:

1. Raising awareness of OSPE, their mandate and their members.
2. Offering constructive input into legislation and regulations that affect their members.
3. Pursuing demand-related legislation that can boost demand for engineering services across Ontario.

The idea behind the advocacy component of OSPE is to have the voice of engineers heard at the policy making table. OSPE works on getting policy makers to work with engineers who can help provide input and expertise while the laws and regulations are being drafted.

The second component of OSPE is offering services to its members. Some of the services that are offered to OSPE members include discounts on home and car insurance, car rentals, gas, eye glasses, legal services, entertainment venues, and hotels. The third component of OSPE provides opportunities for ongoing professional development including a career services centre and networking events.

Currently, OSPE has several services available to students, including discounts on many of the same items as a regular membership. Students are also able to use OSPE's career services center to find a summer or work term job. OSPE is currently working with ESSCO to develop valuable services to their student members.

Over the past few months a relationship between OSPE and ESSCO has begun to blossom. The two organizations have been in contact more often and have had a face to face meeting recently (with the PEO). OSPE's presence will be more observable at upcoming ESSCO events to help increase their visibility among Ontario engineering students.

Right now ESSCO is currently working on facilitating communication between OSPE and a representative from each member school (most likely the VP-External or External Director). If you have any questions about OSPE and its relationship with ESSCO feel free to contact the ESSCO President at president@essco.ca.

Headshave

JD O'LEARY
3B CIVIL

As a new initiative this year, we are running a Canadian Cancer Society fundraiser during Orientation Week. Some of you may have already helped support this cause by satisfying your appetites at our amazing BBQ during move-ins. But there is still more you can do to help out this fantastic cause. The main source of funds for this initiative will be the headshave we are running at the end of frosh week on Sunday, September 7th (the day before classes start) and you can be involved!

You are invited this year's brand new and very unique Frosh Leader Shave Auction! Upon showing up BBQ event at POETS, you and your friends will have the opportunity to place a bid on the rights to shave the head of your favourite leaders. So gather your friends, put on your generosity faces and pool your funds, you don't want to miss out on some of the wacky haircuts you might get to shave off! Don't forget, it's all for a good cause!

This event has long a history of success at Waterloo and has in the past raised as much as $30 000 for cancer research. This is the first time we are holding this event in conjunction with frosh week, and we are setting our goal at $50 000. This will be a fantastic opportunity for you to get involved in the Engineering Society and a perfect chance for you to get payback on your frosh leaders.

Dance the Night Away

KRISTEN ROBERTS
2A CIVIL

Lectures, assignments, labs, tutorials, extra help sessions, midterms, quizzes, studying, technical reports, finals… Welcome to the beginning of the rest of your university life. The path you have chosen is quite demanding and mentally draining at times. But you will grin and bear it. Why? Three reasons: 1) to graduate from the BEST engineering university, 2) to get an amazing job through co-op, and, last but not least 3) to get your iron ring in 4th year. And no one said you couldn't have tons of fun while doing it.

EngSoc is here to help you achieve your required amount of weekly fun. In November, wine and dine in the company of your friends and classmates and dance the night (and post-midterm stress) away at "Midnight in Paris", this term's engineering semi formal. Come to the Festival Room and experience the atmosphere of France without leaving the country, let alone the comfort of the UW campus.

Semi formal is an opportunity to experience what the faculty of engineering has to offer outside of the classroom. But with an appearance by the Tool and the Toolbearers, it is more than just a dinner. It is a chance to mingle with fellow frosh, meet upper year students and impress everyone with your classy sense of fashion and unique dance moves.

Closer to November expect to see decorative posters with event specific details throughout the engineering buildings. Similar to previous terms, three ticket options will be made available: dinner and dance, dance only (purchased in advance) and dance only (purchased at the door).

As you will soon learn, when there is an opportunity to relax and not focus on lecture material, TAKE IT! Hope to see you at this fall's semi. We will be waiting patiently under the Eiffel Tower!

Genius Bowl

GRIFF FERGUSON, MICHAEL SELISKE & TIM BANDURA
GENIUS BOWL DIRECTORS

Hey Everyone!

Q: What do the terms "Briar", "Bonspiel", "skip", and "end" all refer to?

A: Curling!

So every term sees a little competition called Genius Bowl. A friendly trivia competition full of awesome prizes! The winners get their team names inscribed forever into the Genius Bowl trophy, along with another exciting prize! Prizes are offered for teams that come in costume with a specific theme! A spirit award prize is also offered to the team that is the loudest and proudest group of engineers around! The questions encompass a broad variety of categories: literature, geography, history, and even pop culture! Watch for announcements of where and when to sign up!

Good luck with your term! Hope to see everyone at Genius Bowl!

– Griff, Mike, and Tim

Hilarity & Engineering

JEFFREY LIPNICKY
4A MECHANICAL

Hello First Years! I hope that you are having a great Orientation Week. Just in case you haven't already heard, ComEng (Comedy Engineering) is happening this Sunday! We have invited 4 comedians from the Toronto and Waterloo region to come out to UW and entertain all of you. Not only will there be comedians, but it will be a good place to hang out with your leaders outside of The Week. After spending the day eating BBQ and hearing stories from the upper-years, why not come out to ComEng and enjoy some really great comedy? This crazy night is in Fed Hall and doors will open at 7:30. Admission is free. It is an all-ages event so the wrist-band rule will be in effect. You will also need to remember your WatCard. This event happens every year and is always a hit. You might even get to hear one of the comedians make fun of your leaders! Hope to see you there!

Michael Seliske

Bryan Sachdeva and Cara Kennedy showing-off their hot moves at Semi-Formal – Spring 2008!

Frosh Mentoring

ADAM KLETT, DANIELLE TERTULA & TIM BANDURA
FROSH MENTORING DIRECTORS

Hey Frosh!

We are your frosh mentoring directors for Fall '08! Now that you are reading this, we would like to tell you about our awesome upcoming event. On Wednesday, September 10th, 2008, we will be going on a walking tour of Uptown Waterloo. You should take this opportunity to get a sense of your surroundings, and meet some new people. The atmosphere will be very relaxed and there will be plenty of time to socialize with other frosh, and with upper-year students. We'll highlight some of the important places off-campus, like where you can get groceries, good places to eat, and cool landmarks to visit. You can ask us questions about engineering, university living, or any other things you've been dying to know (brownie points for the best questions). This event was a blast last year and this year will be even better! We hope you're having an awesome frosh week and we hope to see you on Tuesday!

In summation: 5:30PM on Wednesday, September 10th, 2008 – CPH Foyer outside of POETS. Be there or be square.

We'll also be running some other events during the term. Keep your eyes peeled for posters and information in the Iron Warrior or in future issues, to learn all about these other events. In the mean time we will also see you at the first EngSoc event, the BBQ on the Sunday afternoon after Frosh Week (Sept. 7th), and ComEng on Sunday evening, where we'll be doing our best to make sure all of you come out and have a great time meeting all the people involved in Frosh Week. Come out, mingle, get some food, and see the Frosh Week video for the very first time! See you all there!

ENGINEERING SOCIETY EXECUTIVE REPORTS

Presidential Report

TYLER GALE & CAT HAY
PRESIDENTS

Welcome Class of 2013! We are your Engineering Society Presidents: Tyler Gale (A-Soc) and Cat Hay (B-Soc).

The Engineering Society is the official organization of all engineering undergraduate students. You can think of it like a bigger, better version of your high school student council! We exist to support you through your time at Waterloo, whether it is academically or socially. We provide academic services such as résumé critiques, online exam bank, and cheap report-binding, as well as a wide variety of events throughout the term ranging from trivia competitions to skydiving to theatre productions!

As the Presidents, it is our duty to oversee all operations of the Engineering Society and to manage the direction of the society with reference to our constitution and mandates. The Engineering Society is a registered non-profit organization with two businesses – the Coffee and Doughnut shop (C&D) and the Novelties Store, two full-time employees, and a wide array of volunteer positions to manage the services and events we run. All of these volunteer positions are held by UW Engineering students like you, and we encourage you to get involved when director applications open at the end of the term.

You may be wondering why there are two presidents (and two of each VP position). Since we alternate between coop and school every four months, the Engineering Society is split into two separate entities: Society "A" (A-Soc) and Society "B" (B-Soc). Each term the on-stream society switches between the two societies, allowing us to maintain a consistent set of executive, directors, and members. All of you will start your term on A-Soc, and half of you will switch to B-Soc in the winter (the 8-stream students).

We hold biweekly council meetings with all of the executive and representatives from each on-stream class. You will elect class reps in the first week, who hold voting privileges for your class, but everyone is welcome to attend and voice his or her opinions. Our first meeting will be on Wednesday, September 17th at 5:30pm in CPH 3385, so be sure to come and find out what's happening around campus (including events, academic updates, and volunteer opportunities). There is also free food provided!

Some other hot spots in engineering include: the EngSoc Office ("Orifice") in CPH 1327, and POETS (CPH 1337) – our student lounge/pub where you can hangout anytime to relax and watch a movie or two after class or during lunch!

In your frosh week bags you also received "The Book". It is full of useful information about engineering student life and we highly recommend that you take a few minutes to flip through it before the academic term picks up. If you have any questions, feel free to ask the upper-year students you will meet during frosh week.

We look forward to getting to know you over the coming terms!

VPEd Report

JEFFREY LIPNICKY & SASHA AVRELINE
VICE-PRESIDENTS EDUCATION

Although you have likely heard this way too many times by now, welcome to the University of Waterloo Faculty of Engineering. We are your Vice-Presidents, Education for the Engineering Society. It is our role to make sure that you, the student, are represented at all levels of the University administration and that you get the most out of your education here. We are members of various decision-making bodies on campus, such as for example the Co-op Working Group which takes care of the issues related to the engineering co-op program and the Senate Undergraduate Council which has to approve all curriculum changes for all programs at the University of Waterloo. Hence we are able to bring student's concerns forward and have them addressed – we are more than just talk, we actually have a say and are able to influence the sequence of events here on campus.

We also provide engineering students with a wide range of services. For example, we maintain an online Exam Bank full of previous midterm and final exams that you will soon find to be an amazing study aid. Also, we hold resume critiques each term to assist students get coop jobs. This is especially important in your first year, since you don't know what to expect. Upper year students will take a look at your resume and give you pointers on how to make it better and get the coop jobs that you want. You will learn that upper year students are a great resource and source of support as you go through your degree – and we are here to help you meet some of them with Frosh Mentoring. Check out articles in this issue entitled "Academic Services" and "Frosh Mentoring" to find out more information about those services.

In the first few weeks of the term, you will be electing class reps. There are various reps to be chosen: EngSoc, WEEF, and academic. These people will be your voice, and it is a great way to get involved. EngSoc will be around to help you select the reps, so you don't need to worry about it too much. If you have issues with professors, lectures, TAs, tutorials, marking, etc. they are the people to talk to. They will be able to approach the professors on your behalf (in confidence) and address the issue. Also, we can serve similar roles if necessary. If you ever any issues or questions, please feel free to approach us or e-mails us (asoc_vpedu@engmail.uwaterloo.ca for Jeff and bsoc_vpedu@engmail.uwaterloo.ca for Sasha) – Jeff will be running the show on campus in the Fall of 2008 and Sasha will be in charge in Winter of 2009. We will be more than willing to help. Sasha has been known to bite, but Jeff only tends to nibble a little bit.

Although our title is "Education" we do more than just focus on our academics. You will learn that in order to succeed in engineering at the University of Waterloo, you need to get involved in things outside of the classroom. There are so many different options and opportunities available to you that it will be hard to choose. It can be overwhelming, but we are all here to help. Stop by the Orifice sometime and say "Hi". We both look forward to meeting you all and helping everyone to make the most of their time at UW. Hopefully you all make great friends this week and your first term of engineering doesn't suck – too much.

VPI Report

SARAH SCHARF & LAURA SISSON
VICE-PRESIDENTS INTERNAL

Hi! I'm Sarah, and I'm Laura, and we are your Engineering Society (EngSoc) Vice-President Internals (VPI). We are in charge of planning EngSoc events, which happen on campus. Welcome to University of Waterloo Engineering! We are so glad that you decided to choose UW, as this is a great school with great support for engineering students. EngSoc is here to be a resource, as well as a second family.

Not only do we plan events for the engineering students here at the school, we also provide useful services to students. Some, but definitely not all, services we provide are cheap photocopying and report binding, résumé critiquing (believe us, this service will come in very handy when it comes time to apply for co-op jobs), and an exam bank for studying off of past exams. As the EngSoc exec, we also represent the students on an academic level by organizing course critiques every term, and having an engineering student voice on various UW committees such as the PDEng review committee (If you don't know what PD Eng is, don't worry, in time you'll find out...)

I, Sarah, am VPI for the current Fall term, and I, Laura, will be starting as VPI in January, so those coming back to campus after Christmas (8-stream) will get to meet me then. As we said before, the two of us are in charge of all the events that are run right here in UW Engineering. Some of these events include Enginuity (lunchtime games requiring some engineering skills and imagination), sports tournaments (can include soccer, basketball, possibly cricket this term, and many more), TalEng (a really awesome talent show featuring yours truly and the other A-Soc executives doing something hilarious, and other great acts), and Semi-Formal (a chance to meet as many people as you can remember, eat, and dance the night away). We are both looking forward to seeing you at our events, and hope that you have a great time during your years at UW.

If you need anything, have any questions, or get lonely, we always love to chat, and we can be found in the Orifice, the EngSoc office located at CPH 1327.

WEEF Directors Report

BRANDON DEHART & MATTHEW BESTER
WEEF DIRECTORS

Hello to all the new Engineering undergrads. Congratulations on your achievement of making it to the University of Waterloo and more specifically Waterloo Engineering! In the next few years you will see what Waterloo Engineering is made of and meet the bright, creative, and dedicated people who maintain the university's outstanding reputation.

One student initiative that was set up to maintain the excellence of engineering was the Waterloo Engineering Endowment Foundation. WEEF, as it is commonly referred to, is run on a simple concept and was started in 1990 by two Waterloo Engineering students. A large principal endowment fund compiled from years of donations is invested continuously and the interest is used to buy materials and equipment for your labs and student teams. This principal is never removed to ensure WEEF will continue to give for years to come. Currently the fund is over $8 million dollars and injects over $250 000 into the Faculty of Engineering annually, making it the largest student-run endowment fund in the world!

One of the unique parts of WEEF is that it gives students the power to decide where the money goes. The funding allocation is performed once a term by a funding council. The council is composed of one representative from every on-term engineering undergraduate class. That means that in a week or two you will be choosing someone in your own class who will be responsible for picking where the money will go.

Across all of the engineering buildings you will most likely see an abundant amount of yellow WEEF stickers. A WEEF sticker shows that the object or room of interest has received funding from WEEF; this is one of the main ways that we show you how much WEEF has provided to the Faculty of Engineering. Last year, a one million dollar donation was given towards the construction of the new Student Design Centre in the new Engineering V building, which is currently under construction across from Davis Centre. This is the largest single contribution in WEEF history.

If you find WEEF intriguing and would like to be involved we suggest that you become your class WEEF rep and/or apply to be an Assistant WEEF Director at the end of the term. If you have any questions feel free to email us or our assistants at weef@engmail.uwaterloo.ca or visit us online at www.weef.uwaterloo.ca.

VPX Report

DAVE HALFORD & CARA KENNEDY
VICE-PRESIDENTS EXTERNAL

Hello First Years and welcome to the University of Waterloo. We hope that you're having an awesome Orientation Week and enjoying settling in to life on campus.

In case you're curious, we are Dave Halford and Cara Kennedy, and we each hold the position of Vice President External for the Waterloo Engineering Society. The reason we both hold the same position is because we have two separate Engineering Societies. This is due to our school's two separate coop streams and each stream has their own Engineering Society. Dave will be running the show in the fall while EngSoc A (A-Soc) is on campus and Cara will be taking over for the winter term when EngSoc B (B-Soc) is back on stream.

As VP External, it is our job to represent you, the engineering undergraduate students, to organizations outside of the school and outside of our faculty. Throughout the year we will be attending multiple student conferences at both the provincial and the national level, in order to meet with students from other schools. We do this to have the opportunity to exchange ideas, discuss issues affecting undergraduate engineering students, and take action through lobbying initiatives. These conferences are held all over the province and country, and for many of them there will be an opportunity for you to apply to come along as a delegate. The most notable of these conferences that you should consider applying to be a delegate for is the First Year Integration Conference (FYIC), which will be held in Ottawa early in the winter term. This is a great opportunity to meet first year students from other schools around Ontario and learn about the Engineering Student Societies Council of Ontario (ESSCO), which all UW Engineering students are members of. There is also an opportunity for those of you who are interested, to help organize ESSCO's Annual General Meeting which will be held at UW during the summer of 2009. This is a three-day conference/bash and is an awesome chance to learn about student government at the provincial level as well as meet a lot of great people from all over the province. If you want to be a part of this team let us know!

It is also our job to mediate with the Professional Engineers of Ontario (PEO), the body that licenses all Professional Engineers within this province. We will be doing this by attending monthly meetings with our local PEO chapter.

The last major part of our job is outreach. This includes Charities, Woman in Engineering initiatives, National Engineering Week initiatives, as well as holding events for the community such as Canada Day celebrations. You can get involved with any of these, and more, by e-mailing one of us to get more information on how to be a volunteer/director. Or check online at www.engsoc.uwaterloo.ca/www/directorships.php!!

We are really excited to have you here with us at UW and we look forward to meeting you. If you have any questions or just want to say hi, don't be afraid to contact to either one of us.

Engineering Society "A" Exec

From left to right:
WEEF Director: Brandon DeHart
President: Tyler Gale
VP-External: Dave Halford
VP-Finance: Adam Melnik

(Former VP-Internal: Lee Anne Belcourt)
VP-Education: Jeffrey Lipnicky

VP-Internal: Sarah Scharf

Michael Seliske

Engineering Society "B" Exec

From left to right:
VP-Finance: Scott Rankin
VP-External: Cara Kennedy
VP-Education: Sasha Avreline
VP-Internal: Laura Sisson
WEEF Director: Matthew Bester

President: Cat Hay

Mary Bland welcomes you to the Orifice!

Many of Engineering Society's services can be found in the Orifice (the EngSoc Office) located in CPH 1327.

You can learn more at http://engsoc.uwaterloo.ca

Michael Seliske

THE IRON INQUISITION

"What do you like most about UW Engineering?"

Sunny Ng, 4N Computer

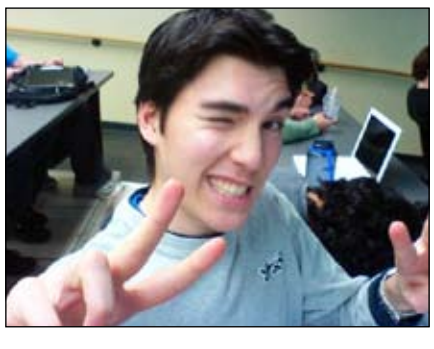
Sunny Ng
4N Computer
"..."

Yousif Al-Khder
2A Management
"The sausage fest."

Sylvia Wu
1T Mechatronics
"The TOOL is an awesome mascot to tattoo on one's ass. Can you imagine tattooing a stick (Guelph's mascot)? That's just crude."

Spencer McEwan
2T Electrical
"My threshold of pain has been made substantially higher."

Rob Graham
4N Computer
"Using engineering skills to optimize selecting the easiest elective."



Engineering Competitions

KEVIN LIU
2T ELECTRICAL

Did you like the Junkyard Wars during Frosh Week? Wanna do it again? Come on out to the Ontario Engineering Competition 2009! The competition will be held at the University of Guelph in February, and the top two winning teams in each category will get to go to the Canadian Engineering Competition at the University of New Brunswick!

The competition consists of six categories:

Senior Team Design – Third and fourth year students compete in teams of four to solve an engineering problem divulged on the day of the event.

Junior Team Design – First and second year students compete in teams of four to solve an engineering problem divulged on the day of the event.

Innovative Design – Teams assess the technical merit and feasibility of a unique product, service, or process that they have invented. Students can usually use their fourth-year design projects for this competition.

Consulting Engineering – Teams construct and promote an engineering solution to potential customers.

Engineering Communications – Competitors must present a well-supported viewpoint on a technological issue using terms familiar to the general public. Teams may consist of one or two members.

Parliamentary Debate – Teams of two compete in a formal debate format with judges deciding the winner. Competitors will encounter a wide variety of resolutions.

The competition is a great way to spruce up a resume – employers love design experience! There will be a job fair, which provides you a chance to get ahead on co-op work terms, and possibly even secure a permanent job position after your graduation. Finally, the competition and accommodation are all free, and you might even get monetary prizes!

A qualifiers competition will be held after the Fall midterms (A-Soc) and during the beginning of the Winter term (B-Soc) to decide which students get to represent UW at the competition.

How do you get involved? Just stay tuned with *the Iron Warrior* or watch out for posters in the engineering buildings, and show up on the day of the qualifiers, and you might be the one to go on this fun and rewarding trip!

Engineering Jazz Band

SUNNY NG
4N COMPUTER

You may have heard of us before, we're *With Respect to Time*, the Engineering Jazz Band. If you have attended either Student Life 101 or March Break Open House earlier this year, you've probably heard us play!

WRTT is a 20-something-piece stage band consisting of mostly engineering students from different departments and years, and is run under UW Engineering Society. This entirely-student run band is the biggest of its kind on campus and has experienced constant growth since its formation in Winter 2005. The main objective of the band is to make music in a fun environment, as such there are no "official" auditions. The band starts up at the beginning of each term.

While playing in the band is a lot of fun, commitment is also required. Weekly rehearsals are held every Sunday night in the Multipurpose Room of the Student Life Centre. Additionally, sectionals are held at various times during the week. Each band member is expected to commit at least 5 hours a week to practice. As well, the band performs several times during the term.

In the past, the band has played at various Engineering events such as EngPlay (the termly Engineering drama production), TalEng (the termly Engineering talent show) in addition to campus-wide events such as UW Canada Day, Student Life 101, Warrior Weekend, March Break Open House and even at the Arts Gala Formal! During the past Winter term, the first Engineering Music Exchange was held where the stage bands of both UW and University of Toronto traveled to each others' campuses to play. We also put on an End-of-Term Charity Gig each term to showcase our achievements. In the past, we have managed to raise over $500 to charities such as the Waterloo Regional Food Bank and the UW Chapter of Engineering Without Borders in one night!

Let's face it, as much as you like engineering, it is probably not the *only* thing you enjoy doing. Why sacrifice your other interests and let your other talents go to waste? While it's true that being in Engineering may require a lot of time to study, complete assignments and attend lectures, it is also important to keep a balanced lifestyle to keep yourself from going insane. If music is your thing, joining the jazz band is perfect. Besides, don't you want to prove naysayers who claim that Engineers have no artistic talents, wrong? I know I would!

If you are interested in joining the band or learning more about us, be sure to check out our website at www.engjazzband.com, or e-mail us at info@engjazzband.com. Our first rehearsal will be held on Sunday, September 7th at a location and time to be determined. Feel free to drop by and say "Hi"!

Sylvia Wu

***With Respect to Time* at the End-of-Term Charity Gig in Spring 2008.**

Athletics at UW

JD O'LEARY
ATHLETICS DIRECTOR

So you got into Waterloo Engineering, your once promising (or at least ambitious) athletic careers are now over right? I mean, we are all here to be studious and spend all of our time in class. We don't have time for sports or generally having fun at all, just studying right? Wrong. I know that there are many of you who, like me, remember high school as that thing that happened between before school and after school sports. For a lot of us the only thing that got us through school was our sports.

For me this continues to be true, through the campus recreation program at Waterloo. Now before I get into this let me assure you that I am not affiliated with Campus Rec in any way, other than as a participant. Campus Rec has not only allowed me to continue to be athletic and to have a healthy release for all my school-related frustrations, but it has also allowed me to join sports that I didn't play in high school. The Campus Rec intramural program is a series of intramural leagues ranging from Ice Hockey to Cricket and all sports in-between. The program also offers several levels of competition within each sport including; beginner, intermediate, advanced and all-star. So whether you want to be competitive or learn a new sport or even just play for fun, Campus Rec can satisfy your needs. One other cool thing about the Campus Rec program is that you can either sign up as a team or as an individual. Each sport has a six-game regular season followed by playoffs and it all wraps up before you have to start thinking about finals. Finally, the coolest thing about Campus Rec is that is CHEAP! Really cheap! A season of hockey costs me $15!!! Almost all sports are within this range, so take advantage of it. Registration happens in the first week of class so talk to your classes and get some teams together.

Another reason to get a class team together is the EngSOC athletic cup. This term we (the athletics directors) are going to run a variety of sporting tournaments, including possible tournaments in dodgeball, soccer, volleyball and softball among others. Winning teams will be rewarded with prizes and more importantly p**5 points for your class. The most successful team in these tournaments will be rewarded with the EngSOC athletic cup. More to come on this in upcoming IW editions.

P-to-the-WHAT?

KRISTEN ROBERTS, HANNAH LINDSEY & NADINE FERGUSON
P**5 DIRECTORS

Whether you overheard your Bigs and Huges talking, saw posters on the bulletin boards in CPH or perhaps were unaware of it until reading this article, P**5 is a major part of UW's Engineering Society. It is essentially at the core of all events, both large and small. But what is it? What does it mean? It's not another acronym, is it?

Like all good things in engineering, P**5 (pronounced "P to the fifth") is one of those acronyms which you will soon learn to love. It stands for "Paul and Paula Plummer Participation Points" and is a competition where classes earn points by going to events or acting in the spirit of engineering. As a class you record all creative and impressive activities, whether it is deciding on a cool class name, creating a class logo, volunteering, writing for the IW, attending EngSoc Meetings, going to Semi Formal, planning a party, submitting entries to various P**5 competitions… the list goes on. While the revised list of rules is still under construction, as the term progresses you can visit http://engsoc.uwaterloo.ca/www/p5.php. The website will also contain information regarding current class standings and an updated list of approved activities and the corresponding points allocated.

Submissions of points can be handled in two ways: 1) Your P**5 rep or class rep can email the directors a list of class points at asoc_p5@engmail.uwaterloo.ca, or 2) You can place the colorful P**5 coupons with your name and class into the P**5 box, located in the Orifice or at the event. If you have any general questions please feel free to email us.

P**5 encourages you plummers to get involved in the Engineering Society here at Waterloo and use the services available on campus. AND not to mention the top three on term classes win cash prizes for their class, to spend how they wish.

And although, it may seem like first year classes have little chance against the older students, that's just a myth. So get out there, participate and most of all have FUN!!!

Adopt-a-Shadow

KRISTEN ROBERTS & JULIANNE KLINE
SHADOW DAY DIRECTORS

After two months of anxiously counting down from graduation, Frosh Week has arrived. In an instant you are thrust into a different world. Some of you may be living on your own for the first time, away from your friends and family. Others will get to experience the wonderful gourmet food of the V1 cafeteria (insert sarcastic tone here). It's an eye-opening experience and it's happening quite quickly.

Before you know it, you will be studying for and writing your first set of midterms. No need to get nervous now, you'll learn that if you are looking for help, you can easily find it, and a great place to start is your TA's office. But I'm not writing an advice column or sharing my experiences. Actually, on the contrary, I'm asking for your experience and your help.

Now I've probably confused you. Maybe you are wondering "But I'm a Frosh, what experiences could I have had that could possibly be of interest to you?"

Every fall term, towards the end of October, the Faculty of Engineering holds an event called "Shadow Day". This year is no different. It is a chance for eager high school students to get first-hand experience of the campus by 'shadowing' a current engineering student from the department of his or her choice. For half a day they will attend your lectures, labs or other morning activities so that they can learn what it's like to be a Plummer (undergraduate UW engineering student).

Shadow Day is an amazing experience where you, yes that means you, Frosh, can inform the upcoming students about university and engineering related issues not discussed during your faculty orientation. While they benefit from your tips on how to prepare for midterms, especially PHYS 115, you will have an opportunity to bond with other volunteers from your class and show off how awesome your new school is.

So in a few weeks when you see posters on the bulletin boards, please VOLUNTEER! By Shadow Day you will have mastered the art of professionally maneuvering through the engineering buildings without getting lost, taking the wrong tunnel or trying to push a pull door in E2. If you have any further questions about how the event is run, contact the directors at shadow@engmail.uwaterloo.ca.

Federation of Students
President's Letter

JUSTIN WILLIAMS
FEDS PRESIDENT

Hello, and welcome to our incredible UW community. It is a pleasure to introduce you to the Federation of Students. As the governing body for full-time undergraduate students at the University of Waterloo, the Federation of Students works to serve, empower and represent the interests of the undergraduate population on campus. We accomplish this mandate through a series of representative bodies, clubs, services and businesses. The best part, of course, is that over the next five years you can use each of these avenues to shape the University of Waterloo campus, so that it reflects your vision of an ideal campus.

If you enjoy lobbying, debating university and government education policies and want to make sure that the structures in place are adequate to foster a rich student experience on campus, then the Federation of Students has opportunities for you. During your first year on campus, you can run for positions on Students' Council to represent other students in Engineering, become a member of one of our commissions or standing committees and become a member of the First Year Working Group.

In addition to involving yourself in the governance of the Federation of Students, you can also work to shape the Waterloo community by getting involved with our clubs and services. Our club structure supports the creation of clubs that can be religious, cultural and social in nature and work as outlets for students to become engaged with other students who share similar experiences, beliefs and interests. In addition to clubs, the Federation of Students also offers services which are established when it is felt that there is an unmet need on our campus. At current, we have nine services: the Campus Response Team, Co-op Student Services, Food Bank, GLOW – the Queer and Questioning Community Centre, International Student Connection, Off Campus Dons, Student Refugee Program, UW Sustainability Project, and the Women's Centre.

Finally, whether you are looking for a well-priced meal, Halal foods, phone cards, textbooks, a large venue to host an event or a job while you are in campus, the Federation of Students can help you out. That is because we own six businesses that all share the same dedication to serving students and making sure that your experience on campus is one that you are proud of.

I hope this makes it clear that we pride ourselves on working with our fellow students to make this campus great, and we want to provide you with the tools to have a worthwhile student experience. So, stop by our office in the Student Life Centre and check out our website to let us know what we can do for you.

Remember, make this campus yours.

Justin Williams, for the 2008/09 Federation of Students' Executive Team

The Federation of Students (Feds) executive.
From left to right: VP-Education Andres Fuentes, VP-Internal Andrew Falcao, VP-Administration & Finance Del Pereira, President Justin Williams.

Civil Engineering

STUART PEARSON
2A CIVIL

Hey Civils, welcome to Waterloo! All those years of playing with LEGO and building things as a kid have finally paid off and culminated in your arrival here. You're probably a little bewildered by it all, but that's completely normal. Fresh out of high school and ready to conquer the world, you may be in for some surprises. First year in Civil Engineering is a rough ride, no doubt about it, but it also has the potential to become one of the best years of your life thus far – I know it was for me!

First year will provide you with the academic foundation in math and science that you need in order to learn the cool stuff in your upper years. The Geological and Environmental engineers share the same course load as Civils in first year. Your first term will consist of five courses: Calculus, Linear Algebra, Chemistry, Physics, and Civil Engineering Concepts. Some of what you learn in those first four courses will sound familiar from high school, but the work load is much more intense than what you will be used to. Don't lose too much sleep over the PHYS 115 midterm, though… CIVE 125, your concepts course, is quite interesting as the material is entirely Civil-specific. Professor Bob McKillop will lead you through marathon surveying sessions, the basics of AutoCAD, and much more. His scatterplots may be terrifying but for some of you it might be just the motivation you need to work hard.

In second term, you will start to take more courses geared specifically at Civils. There is more Calculus, of course, as well as Circuits, Programming, Earth Engineering, and Statics. You get one elective to top it off, although be sure to pick something enjoyable but easier, as the rest of your course load will be quite intense already. Second term is more difficult than first, but it's more interesting and you'll be better prepared for it.

Co-op is a great chance to put into practice some of the things you've learned and to give you a chance to figure out what you want to specialize in. There are so many different areas to branch off to from Civil, and they're all really interesting. The time is ripe to be a Civil Engineer, especially out in western Canada where the oil boom has created an abundance of jobs.

Above all, make sure that you make friends and have some fun. The hundred or so people in your class will be together for the next five years, so it's good to start meeting people now. Stay active, eat healthy, get lots of sleep, and become involved! Staying well-balanced is important to surviving first year and keeping your sanity.

A Message from POETS

JD O'LEARY, DANIELLE TERTULA & HANNAH LINDSEY
POETS MANAGERS

For those of you who don't know, POETS is the engineering lounge located by the CPH foyer (CPH 1337). Since POETS is officially closed during Frosh Week, your introduction to the infamous engineering lounge will happen on Sunday, September 7 at the Frosh Mentoring BBQ and the Cancer Society Headshave.

POETS is a very welcoming space filled with comfortable couches and chairs, where you will always find fellow engineering students relaxing, watching movies, and even sleeping during class breaks. The lounge also has a huge projector screen and sound system, where you will find three movies, or even a TV series, running each day. The movies of the day are always listed on the whiteboard in the CPH foyer, just outside of POETS. In addition, a foosball table and an assortment of board games are available for students to pass the time.

On Thursdays and Fridays, and for other special events throughout the year, POETS acts as the Engineering Pub. Bar services comes in to serve refreshments in the form of beer and coolers, for those of us who are of legal drinking age. But don't worry, POETS is still all ages even during this time. If you at least 19, you are still welcome to hang out in the lounge, or come out and party, you just can't drink.

As far as the "special events" in POETS, this generally refers to our OT parties. More specifically BOT, MOT, and EOT (Beginning of Term, Middle of Term and End of Term). These all-ages events start at 9pm in POETS on specific Fridays during the term. Usually BOT is on Friday of the first week of class, MOT is on a Friday near the end of October when midterms are finishing up, and EOT is on the Friday of the last full week of classes. OT's are themed parties with lots of music, a visit from our mascot – the TOOL, and just plain awesomeness. This Fall BOT happens on Friday, September 12th at 9pm and you can expect a great party and the unveiling of the Frosh Week video.

A lesser-known fact about POETS is that it can also be booked by any group to host your events and parties. So if you're looking for a place to have your class party, or any other event, all you have to do is go to the Orifice (down the hall from POETS at CPH 1327) and fill out a booking contract. It's that easy!

Cheers,

The POETS Managers

EngSoc Meetings

JD O'LEARY
ENGSOC SPEAKER

Though most of you have not had a formal introduction to the Engineering Society (which will happen on Sunday), I thought I should take this opportunity to invite you to attend EngSoc council meetings. Any member of the Engineering Society (which you all are!) is welcome at these meetings, which happen bi-weekly on Wednesdays throughout the term. The first meeting is on Wednesday, September 17th from 5:30pm – 7:30pm in CPH 3385.

EngSoc meetings are an opportunity for students to gather and discuss important issues affecting the Engineering Society. Each class will need to elect a class representative or representatives to attend all meetings and vote on behalf of your class. Though each class only gets one vote, as many people as would like can attend the meeting.

Meetings generally start with an address from each of the executives, then move on to "old business" or matters that have yet to be sorted out from previous meetings, and finally new business". New business consists of directors and students presenting information on events, initiatives, and general information that they think is important. Anyone can get onto the "Engenda" to present at the meetings by emailing asoc_speaker@engmail.uwaterloo.ca.

Oh wait… there is one other minor detail I forgot to tell you about: **free dinner** is provided to everyone who attends these meetings!

Enginuity

TIM BANDURA
2A MECHANICAL

I will be running Enginuity for the Fall '08 term. What is Enginuity, you ask? Enginuity is a series of small competitions run during lunch over the term. You can compete in teams of up to four. In each competition, you will be given a task, some materials, and it will be up to you to develop the best solution. Prizes are awarded for each event and a grand prize is awarded for the overall champions! Think of it as a cross between MacGyver and Junkyard Wars (albeit much smaller). The first competition will take a twist on the classic "egg drop". Keep an eye out for advertisements for signing up and the first competition!

Chemical Engineering

MICHELLE CROAL
2A CHEMICAL

Chemical Engineering is one of the more traditional engineering disciplines, but that doesn't make it any less important to modern applications. Chemical engineers are needed in any process that involves the chemical manufacture of a product from raw materials. This used to mean just chemicals and materials, but now chemical engineers work in pharmaceutical or medical, food industry, environmental, electrochemical, polymers and plastics, metallurgical, and nanotechnology fields and the list goes on and on. Chemical engineering co-ops students find jobs in oil and gas, chemical production, and office and lab environments to name only a few.

In first year at Waterloo, ChE students take a few introductory courses in mass balances and chemistry, in addition to the general calculus, algebra and physics that other disciplines take. There is also some exposure to programming, electrical circuits, and biology. Second year follows with more calculus, statistics and management science, in addition to some more chemical engineering specific subjects such as thermodynamics, phase equilibrium and fluid dynamics. Be prepared for two lab courses in 2A (ChE 290 and organic chemistry) and hours of reporting…

Third year has more courses on heat and mass transfer, reaction engineering, process improvement, electrochemistry and biology to name just a few. By fourth year, you'll be able to choose your own technical electives, to finesse and stream your degree into something you're interested in as a career. Labs continue pretty much every term, so it's a good idea to develop a macro or format that helps you get started quickly. Throughout your years at Waterloo, you'll be able to take five complementary studies electives to get in some humanities and economics. The workloads are tough, but manageable, and term stress levels depend on the number of assignments and the weekly hours of lab time (which can range from zero to nine). Be sure to practice your chemical skills in the kitchen and brewery to counter engineers from other programs if they mock you for taking "just cooking science". DWE will become your home, and if you're lucky, you'll come out of all those labs with some good stories of experiments gone awry and your sense of smell intact!

Computer Engineering

SUNNY NG
4N COMPUTER

When you first announced to your family and friends that you were going into Computer Engineering, you may have been met with such inquiries as "What the hell is that?" or "You're going into Computer *Science*?"… which will often result in such defensive answers as "Don't insult me like that!" and "I'm actually going into a career that won't be replaced by monkeys on typewriters anytime soon, okay?"

But what exactly *is* Computer Engineering? Computer Engineering is a pretty broad field which covers skills and theories applicable in designing, building and testing computer software and hardware components. First year is very general; you share many of the same courses as the rest of first year engineering, although Calculus for ECE is slightly different from other disciplines. In your 1B term there is the double-weighted ECE 100 course, which covers the Fundamentals of Electrical Engineering. This is where you will learn about circuits, magnetic fields, and much more. There is also a lab component where you will get to see the circuit components you learn about in action, as well as Computer-Delivered Tutorials (CDTs). You will learn about concepts in software and digital hardware design as well as embedded systems in upper year, which will have more labs and projects as opposed to assignments and quizzes. In fourth year, you can pick your own technical electives to suit your own interests, in addition to the infamous Fourth Year Design Project, which is a major group project which includes a symposium component. You will start working on that in your 3B term.

Obviously, there is quite a bit of programming involved in Computer Engineering. You will take your first programming course (ECE 150) in your first term, where you will learn the most basic programming concepts in C#. If you have any experience in programming, you should have no problems following the course. If you don't however, don't panic – it's only an introductory course, and there is plenty of help available.

Computer and Electrical Engineering form the biggest department on campus, the department of Electrical and Computer Engineering (ECE). The two programs share many of the same courses. If programming or software isn't your thing, you might want to consider switching to Electrical Engineering. Fortunately, the curriculums for the two programs are so similar that it is not difficult to switch between them. In fact, prior to 2B (second half of second year), students from both programs take almost exactly the same courses. Contact the First Year Office or the ECE department for more information.

Most students in Computer Engineering have no problems finding co-op jobs, as the field is so broad that there are many opportunities available. You can secretly laugh at students of other disciplines behind their backs when they panic because they still don't have a job by the time final exams hit. However, just a warning though: many first-year students end up getting stuck with rather mundane jobs, such as performing repetitive software/hardware tests in Quality Assurance or IT Tech Support. In later years though you have better chances getting hired by tech powerhouses such as Google, Microsoft, Apple, Amazon.com, RIM, Qualcomm, IBM, Intel, and AMD, as well as financial institutions like Morgan Stanley and Barclays, who routinely come to Waterloo to recruit potential employees.

Now that you know what you're in for, best of luck and hope you succeed!

Electrical Engineering

SARAH SCHARF
2B ELECTRICAL

Electrical Engineering is often compared to Computer Engineering. They take many of the same courses, and are in the same Engineering department here at Waterloo, the Electrical and Computer Engineering (ECE) Department.

During your first term (here it's called your 1A term) you will be taking many of the same courses as the other disciplines. Most will be taking Algebra, Calculus, Physics, Chemistry, Programming, and some form of a concepts course which is an introduction to the engineering profession and engineering methods. Algebra, Physics, and Chemistry will be a continuation from what you learned in high school, and will get progressively harder as the term go on. Take advantage of the fact that so many students are learning the same things. There will be many people around that can assist you if you are struggling with a difficult topic, so make sure you ask for help long before the day before the exam.

Your 1B term will be more difficult, but will also be more interesting. Your physics course will be a continuation of the first one, as will calculus, but you will also have a circuits course! It is called ECE 100, and in the labs you will learn how to use tools to measure resistance, inductance, current, voltage, etc. Make sure that you do not fall behind in this course, as it is double-weighted and therefore counts for more in your average.

Don't be overwhelmed by all of these courses. One thing that I found which helped me in first year was taking the study skills seminars that Counselling Services offers at lunch time. They give you tips and tricks on how to remember your course material longer, and how to study for tests and exams efficiently (good time management is the secret ingredient). It's not too late to start improving study skills now, I'm in second year and mine still need improving. Having good study skills is the key to success.

Not academically related, but still SUPER important are resumes and interviews. There are going to be many different groups of people talking to you about how to write a good resume, and where to go to get it critiqued. Get as many people to critique your resume as you can. Job searching is nerve wracking, yes, but it's also a great learning experience. And ECE students have many jobs to choose from, even in first year. Project management, software, hardware, try it all, and that way you'll have a good idea of what you want to do with yourself when you're done your degree.

Having good study habits does not mean locking yourself in your room 24/7 reading notes and doing problems. It's also very important that you have fun! You're at University, enjoy it! Every week there are going to be tons of event posters up all over UW, so take some time off from studying and go out. We have sport tournaments, dances, clubs, societies, classes, volunteer opportunities, and trips to various fun places. Get out of your room and live a little!

Environmental Engineering

DARCY COLLINS
'08 ENVIRONMENTAL

Environmental Engineering (or EnviroEng as it's often called) integrates the sustainable development philosophy into the principles of water management and treatment, solid waste management, remediation of surface water and groundwater systems, biotechnology, and contaminant transport. Major study areas include waste and water treatment, migration pathways of chemicals in the environment, and environmental assessment and modeling.

The first year of the program gives students a general background in the main concepts of engineering. You will be exposed to introductory environmental and civil engineering concepts. First year is similar to the Civil Engineering program which can allow students to switch between the two programs upon entering second year. However, the Enviros are 4-stream, unlike the Civils, making this switch somewhat complicated.

The remaining years of the program integrates the best of Engineering courses with the diversity of technical elective courses in Earth Sciences, Biology, Chemistry, Ecology, and Planning. You will also receive background in the principles of public and private enterprise, of responsible risk management, and of environmental impact assessment.

As an EnviroEng student you will participate in labs which involve surveying, lab analyses including chemical and biological analyses, field sampling techniques including water/wastewater sampling, and testing the principles of fluid mechanics and hydraulics.

On the job front, students in the Environmental Engineering program have participated in co-op jobs around the world giving students ideas of what types of jobs are available upon graduation. Students have worked in consulting firms, treatment, and manufacturing plants, regulatory agencies, and government offices. Jobs and projects range from research, to product development, design and modeling, infrastructure, remediation, risk and resource assessment and management and policy development just to name a few. Jobs disciplines can also include water, wastewater, groundwater, air, soil, and energy.

The Department of Civil and Environmental Engineering provides a tremendous support system through professors, technicians, teaching assistants, and staff. All are available and willing to provide help and advice on course work, as well as personal struggles. Work hard, rest and eat well, and don't be afraid to ask for help!

Geological Engineering

CAILIN HILLIER
1T GEOLOGICAL

For those entering the Geological Engineering program at the University of Waterloo, there is much to be excited about! This program offers many different paths to follow in upper years, after completing a first year with a curriculum that is identical to the Civil and Environmental Engineering programs. The 1A Term for Geological Engineering provides an excellent basis to gain skills that are very effective for helping to learn a great deal about the engineering profession. In our Concepts course, field surveying and work report writing skills are introduced, proving to be particularly helpful for attaining your first co-op jobs. The other first term courses provide an excellent review of high school material, as well as the introduction to new concepts in physics, chemistry, linear algebra, and calculus.

In the 1B term, following your first co-op placement, an Earth Engineering course is presented. This course epitomizes Geological Engineering, giving an overview of many aspects of earth sciences and its connections to engineering applications. Earth Engineering also has a lab component, where rock identification skills can be mastered. In addition to this, first year courses allow for hands-on experience with useful technical aids, like AutoCAD and basic computer programming.

In upper years, a wide variety of courses are available. For second year, such courses as Structural Geology and Earth History are taken. Most courses taken in the Geological Engineering program fall within four main categories. These include technical courses in Water Resources, Geotechnical Design, and Earth Sciences, as well as multiple Field Courses.

By 3B, the Geological Engineering program deviates into two themes: the Geomechanics Theme and the Hydrogeology Theme. Although right now choosing between the two, or even differentiating between these two themes seems like an overwhelming task, I can assure you that co-op program will provide experiences to help in making your decision. The wide variety of co-op positions for those in Geological Engineering is awe-inspiring. Options to travel are definite for anyone seeking them, with positions posted for all areas of Canada and many places around the world. For those looking for jobs in the geotechnical field, a wide variety of placements exist in Southern Ontario as well. Geo jobs related to mining follow the resource industry, with opportunities as far as Vancouver and northern Alberta, into the Northwest Territories, and as far east as Labrador. Co-op jobs are the best learning experiences and the co-op process allows you to refine your interview skills and build up a strong resume, giving you the tools to pursue any careers opportunities you wish to achieve.

Management Engineering

TREVOR JENKINS
2A MANAGEMENT

On behalf of the ManEng Class of 2012, welcome to Waterloo and the Department of Management Sciences! If you don't already know, you're the second class in this new and promising program.

By now, you might have been asked what Management Engineering is, and provided the honest response of "not a clue". The easiest answer: contemporary industrial engineering. The one real answer: none. It's difficult to take into account the breadth of the program in one simple definition. The department's preferred answer: it's the understanding, design, implementation and management of complex systems upon which organizations depend. Depending on whom you talk to, your interests, and why you chose the program, what ManEng *is* will vary.

First year is the general foundation year in which you will learn the math, science, programming, accounting and material science skills needed for upper years. The 1B semester will be the workhorse term where you will need to work hard in material science and programming to ensure you are fully prepared for what's to come. One difference is that you will be programming in Visual Basic .NET (VB.NET), instead of the traditional C++ or C languages. Therefore, visits to your prof and TAs will be essential if you need help. Civil Engineers also learn VB, however in a very different way.

Second year continues to build on these skills, with emphasis on data structures and algorithms, managerial economics and accounting skills. Most of these courses will be offered for the first time this Fall and next Spring.

In third and fourth year, students can focus on one of three themed areas: Operations Research and Supply Chain Management, Information Technologies, and Management of Technology. As well, ManEng offers freedom with upper-year technical electives, with the choice of courses from other engineering departments if your interest is outside one of the themed areas. Eight short course sequences are also available with focuses in Transportation, Energy, Mechanical Engineering and Operations Management.

Co-op jobs are also abundant in a variety of fields. This past spring, students were working in aerospace manufacturing, health care, international development, programming, and transportation sectors just to name a few. There were also at least three students abroad, however I should point out these are rare during your first term unless you are an international student.

The department is also meeting the demands by offering new space with the recent completion of the Management Science extension on the third floor of CPH. It consists primarily of offices for the new influx of professors that will be joining the department over the next four years. As well, word is that the ManEng study room will be completed soon, providing valuable space for the classes.

It's difficult to say what the program will be like for your class since the "new car smell" is still lingering for the program. I'm sure the feedback given to the department last year was taken into consideration to build a stronger program for this class. Welcome, and congrats on coming to Waterloo!

Mechanical Engineering

JASON NG
3B MECHANICAL

So here is what you should expect from the next few years in your life as a mechanical engineering undergrad at Waterloo:

I'm not going to lie, first year will be tough. You will be bombarded with numerous assignments a week from every one of your courses, particularly ME 100, the first year concepts course. Although this course has by far the heaviest workload, it is also by far the most interesting. Do your best to remember everything you learn in this course! They teach it for a reason. And hang in there with the assignments, later on in life you'll look back and be proud of the accomplishments you'll have made just getting through first year ("How the hell did I manage all that???"). The other courses covered in first year are mostly all the basics like calculus and physics with a few special ones thrown in here and there like programming and materials. They are all designed to give you a solid foundation for the fun things to come. In second year, things start getting interesting. You will start actually feeling like a mechanical engineer with courses like dynamics, materials, thermodynamics and programmable logic and digital controllers. At this point, if you still haven't found something within Mech Eng that you don't enjoy, don't worry! Third year gets even MORE interesting. Then finally in fourth year you'll start choosing your technical electives, where you can study some really cools things like automation and control, welding design, machine design, solid mechanics, fluid mechanics, and this list goes on and on.

Now here are some useful tips to help you survive your undergrad years: Start your ME 100 final report early! Keep your ME 100 report and use it as a template for future work term reports, it will save you a lot of work. Get involved in first year with teams like Formula SAE, Aerial Robotics or Mini-Baja. You can learn a lot from them. "Hell week" is a blessing in disguise; after first year, all your midterms happen during a single week where all your classes are cancelled, i.e. 5 midterms in 5 days. It may seem brutal (that's why it's known as hell week), but wait until you hear all your non-mech buddies complain about doing assignments and going to class at the same time as studying for midterms. Don't listen to anyone when they tell you that term X is harder than term Y. They are all equally as difficult and different people will find certain things harder than others so don't get scared. If you get a work term at a company that has a plant or shop floor, make friends with the floor guys (and girls) as sometimes they can teach you much more useful things than the other engineers. Finally, never, ever be afraid to ask for help, from anyone. Good luck!

Mechatronics Engineering

SYLVIA WU
1B MECHATRONICS

There is one thing that all Mechatronics Engineering students are guaranteed to experience during their studies at the University of Waterloo: you will be continuously asked to explain what Mechatronics Engineering is during co-op job interviews. If you skip your MTE 100 lectures by Professor S. Bedi, you are also guaranteed to blank out upon being asked said question, or give a response that earns yourself a "not ranked" by the end. To help you out a little, here's the easy version: Mechatronics Engineering is a multi-disciplinary program that integrates the best aspects of Mechanical, Electrical, Computer, and System Design Engineering. Don't forget to also throw in the punch line: "I'm four co-op students in one, you can't get a better deal than that!"

The Mechatronics undergraduate website will tell you that Mechatronics Engineering concerns the design of computer-controlled electromechanical systems. To visualize that long definition, imagine being on the team that designs the spray-painting robotic arms used at automotive plants, common consumer products such as DVD players and SLR cameras, or even extra-terrestrial exploration robots. Nowadays, hardly any newly-invented device that's mechanical in nature can function well without integrated electrical and computer control systems. This makes graduates of Mechatronics Engineering highly desired.

Mechatronics doesn't just sound cool, although that's the reason why 90% of you are here. Rest assured that you'll enjoy it, since there's something in it for everyone. The program will allow you to explore a wide range of co-op jobs, you could be a mechanical design co-op during the first work term and jump to software development for the next. Mechatronics Engineering student can also be a valuable part of virtually every student team on campus. Few other engineering students can boast such flexibility in professional and extracurricular opportunities.

The academic regimen of Mechatronics Engineering is difficult, but it's not impossible to survive. Projects such as the Lego Robot make school almost enjoyable. Just don't forget to work hard and play hard to avoid burning out!

Nanotechnology Engineering

RUSSELL STERRETT
2T NANOTECHNOLOGY

So you've decided to come to the University of Waterloo to study Nanotechnology Engineering. Like most young, intrepid frosh, you probably have a lot of questions floating around in your mind. Questions like, "what exactly is nanotechnology?", and "what kind of sick people would spend their free time stuffing poor innocent kitty cats into unobservable boxes?" Some of you might even be a little uncertain about choosing to enroll in this program. My advice: don't worry. According to the laws of quantum mechanics, we can never, ever be totally certain about anything whatsoever in the entire universe, so you might as well get used to the feeling and enjoy the ride!

Now that you've been exposed to your first nano-related pun, I can move on to describing the finer points of your nanotechnology futures. In 1A, (your first term), you'll have a pretty standard engineering mix of classes; you've got your calculus, a little bit of linear algebra, and you'll learn how to use MATLAB, the most awesome programming language in the world. You'll also have your first nano-specific course, NE100, which, among other things, teaches you how to do cool quantum-y stuff, like how to solve the Schrodinger equation. The best part about this is that it's always a huge hit at parties. Trust me; nothing impresses the ladies like a man who knows how to normalize a wavefunction. You'll also spend the first week of classes learning the three central tenets of nano, which are:

1. That "nano" comes from the Greek word for "dwarf", and is a prefix meaning "10-9".

2. That the number of transistors that can be inexpensively placed on an integrated circuit is increasing exponentially, doubling approximately every two years, and

3. That Richard Feynman is awesome.

Things will start to get a little more intense in 1B, where the men are separated from the boys and the women from the girls. "Buckling down", "busting your ass" and "putting your nose to the grindstone" are all highly recommended activities. You'll be learning just about all of the core chemistry and physics skills that you need to have mastered by the time the more nano-focused curriculum content rolls around in 2B. 2B is when the program starts to get substantially different from everyone else's, and for me, at least, it was when nano really started to get to be a lot of fun. It's definitely worth the wait; hang in there, focus on the long-term goals, and I can assure you with reasonable probability that nano will be a very rewarding experience.

Software Engineering

JOE COLLINS
2T SOFTWARE

Welcome to SE@UW! You guys are now a part of the big party that is Software Engineering. Not quite math, yet at the same time, not quite engineering. Think of us as the good-looking brain-child of the two faculties.

Software Engineering is about designing, implementing, and maintaining software. You will experience this right away in SE 101, when you program a small robot to navigate through a maze. From scratch. You will learn about the software life cycle, how to design good software (that puts the software you wrote in high school to shame), and how it works with the hardware. You will take both Computer Science and Computer Engineering courses, as well as some special Software Engineering courses, but it all leads to one thing in the end: a newfound knowledge of software that you couldn't gain from either CS or CE alone.

You will have many chances to meet your fellow Softies throughout this week. Sure, you're divided into your various engineering teams and competing viciously against each other, but for math events, you are all on the same team, working together to achieve victory. And you'll see something similar to this once Orientation Week is over: there will still be some competition between some of you to see who achieves best, but you'll still be working together to understand the concepts covered in class. Take the time to meet as many people as you can this week, for it will prove to be invaluable in your upper years, especially when group projects come around.

Now you may have heard the saying "all work and no play makes a Softie no fun". Well, if you haven't, you have now. But seriously, though, you will need to take some time to do something that you enjoy, be it playing some dodgeball, volunteering with EngSoc or MathSoc, or the occasional, quick game of StarCraft (just remember why you are here). If you don't take the time to enjoy yourself on occasion, then you will feel so stressed that you won't think any part of the UW experience is worth it. But if you get involved in random activities, you will have something to look forward to, you will meet more people, and you will enjoy life at UW just that much more.

Congratulations on joining the ranks of Software Engineering here at UW. You have worked hard to make it here, and you will work even harder in the years to come to earn your degree. Good luck to you all, and I will leave you now with three words of advice that should be heeded by everyone in SE: Sleep is good.

Architecture

ANDREA LAM
3B ARCHITECTURE

Congratulations, architects – you're here!

But what exactly does it mean to be here? Who in the world put us here…of all places…in Cambridge, Ontario? Why are we here?

The big questions in life are often the toughest to answer, and I assure you that the questions will just get more obscene and answers will become less tangible as you proceed through the University of Waterloo School of Architecture (UWSA) over the next 5 years. So let's start small.

What does it mean to be here? It means that you worked hard in school, put together a rather presentable portfolio, and wowed an entire interview panel. And of course, you failed your English Precis. What – fail? How can that be? Well, rumour has it that the students selected failed most creatively, and I believe it. If you take a look around at your first-year peers I can confidently tell you that, looking back, are 82 truly unique individuals from every walk of life – from mature students, to international students, to students straight out of high school. Each brings with them their own creative flair to the table. Even now, three and a bit years into it, I cannot claim to be fully aware of the myriad of talents my classmates have to offer academically, artistically, musically, or personally.

Without hesitation, I'd say that the greatest tool you have at your disposal in first year is each other. I know the greatest relief in my first year was realizing that I was not in this alone. The beauty of Waterloo's architecture program is its tight-knit community.

See ARCHITECTURE on Page 16

Systems Design Engineering

TRICIA ENNS
3N SYSTEMS

On my first day of class one of our professors asked everyone in the class why they chose Systems Design Engineering. Some said they hoped to go into management after graduation, others hoped to use it for entrance into medical school. However, the majority of the class, including myself, really was not sure. Not to say that Systems Design is for the confused and indecisive, a general engineering (as many outside of SYDE believe it to be), rather it is a unique field of engineering that values diversity. This indecision that many of us felt, and still do feel, is due to the diverse range of skills and interests SYDE students possess.

Although you will have to take many of the core courses your fellow engineering students also take: including calculus, physics, and programming, the Systems Design program makes sure to place a strong emphasis on how all of the disciplines, both inside and outside of engineering, work together to form the world we live in. This tendency towards an interdisciplinary education is emphasized by the open-ended group design projects you will be required to do in five of your eight academic terms. In my class alone, projects have included an automatic fire evacuation system, an exercise machine that generates electricity as you lift weights, traffic lights powered by the wind that passing cars produce, and many more. With such a vast spread of projects produced by every class its no wonder we have a hard time defining what SYDE is. Let me be honest, even the professors have difficulty with this question.

Don't worry though, you will not be alone struggling with your identity crisis, you will have your entire class and those above you for support. Sometimes I stop and wonder how I could have survived in this program without the support of my classmates, the answer is simply – I couldn't. As soon as you sign-up for any type of engineering you know it will not be a walk-in the park, and Systems Design Engineering is no exception. Yet, when working alongside your best friends, those late night study sessions don't seem so bad. SYDE students are known to have lots of fun, become socially involved, and cultivate a strong student community. The E2-1303 hallway will become your home and your classmates your family. This is how it has been for me, many that have come before me, and I am sure it will be the same for you.

These next five years are going to be full of laughs, tears, sweat, frustration, joy, but mostly many sleep-deprived nights! Get pumped, you're going to have the time of you life!

Architecture

ARCHITECTURE
from Page 3

This brings me to answer the next big question – why Cambridge? We are proudly Waterloo's first satellite campus and are improving the quality of life there for the students and the Cambridge community exponentially with each passing year. Rick Haldenby, director of the School of Architecture, can tirelessly re-tell the story of how Cambridge's mayor (and thus city) requested for the school to move there, so I won't steal his thunder. The only point I'd like to get across is that it really isn't so bad.

As a community with very similar goals and therefore very understanding individuals, the school always embraces busy schedules, sleepless nights, and varying interests. Respectively, there are always staff members readily available to help when you need it, Red Bull and Pancake sessions during deadlines, and everything from 3-on-3 basketball tournaments to weekly pool challenges at the local "pool hall". So if you ever feel a slight longing for what (main) campus life might be like, remember that you are in the fortunate position of being part of a family. This is a group that will know not only your name, but your interests, strengths, weaknesses, and, inevitably, things about you that you'd rather not mention again. And we will embrace you for those little idiosyncrasies and midnight ramblings with the odd show-tune performance.

Now, why are we here? In this world, on this Earth, I do not have an answer (you might, after 3rd year cultural history. Or you can make friends with an Arts major) but I can tell you that you are here for an experience. The next 5 years will be a time that will teach you, reveal you, and change you. You are here to grow as students, architects, and ultimately people. From trips to New York, to studio deadlines, to your first co-op, and Rome, there is always something to look forward to.

I can almost guarantee that you will discover how to work on no sleep and surmounting amounts of pressure, draft like a machine, sleep in the most obscure positions at the most unnatural of times, read a book (or more) a week, replace pictures of people with buildings, and find a way to go through 40 GB of music and be bored of it every last song. But above all, I guarantee you will discover something about yourself. Be proud of your accomplishments and remember that people have been there and made it through – and if we didn't think you could too, you frankly wouldn't be here!

Before writing this, I mused with a friend that I could write just about anything and the first-years just take my word for it, and wouldn't re-read the article in 8 months, saying, "Andrea, you were lying when you said this would be fun." But I sincerely mean every word I've written and hope that one day, even if not at the end of 1B, you will believe me when I say you deserve to be here and there is a reason for it. It most likely will not be the same as someone else's, but at one point, you will understand! In the meantime, welcome to the Architecture School – it's going to be wild.

ARCHITECTURE
WATERLOO ARCHITECTURE CAMBRIDGE

STUDENT CLUBS AND TEAMS

R3Design

DAVID KADISH
3N SYSTEMS

Engineering has a noble tradition of improving the quality of people's lives by pushing the boundaries of human ingenuity and creative power. For centuries, engineering has been central in building bridges to connect people – first physical bridges and then the metaphorical bridges of modern telecommunications networks.

The next great challenge facing the world is the scarcity of resources. If the entire world lived as Canadians do, we would consume the resources of 3.5 Earths. The challenge to engineers is finding new ways to use and re-use resources more effectively and in ways that do not degrade our other natural resources.

We all have a role to play in this. Chemical and Nanotechnology Engineers can help to find new processes and materials that are environmentally benign. Mechanical and Mechatronics Engineers can help to design new energy capture and storage systems so that we can better manage our available power. Electrical, Computer and Software Engineers can help to design the hardware and software that will control our resource management systems. Civil, Environmental and Geological Engineers can help design new buildings and cities so that they interact positively with their natural surroundings and inform their inhabitants about the natural history of the location. Systems Design and Management Engineers can help to identify needs and bring the components together to form a more effective whole.

R3Design is about bringing people together to tackle these challenges. Started in February of last year, R3Design's mission is to gather people from all faculties who care about their effect on the ecosystems around them to discuss and ultimately participate in design projects to improve that effect. We discuss the meaning of "ecological design" and how one can focus on the ecological effects of a product, a process or a policy.

This fall, we will also be embarking on our first design project. We will be designing a living set – desks, chair, bed, shelving – for university students. We will be focusing on portability and ultimately being able to fold the entire set into a single box for transport. We'll also be addressing the materials involved in the set and their lifecycles, as well as the set's ergonomics.

With that, I'd like to invite you to visit our web site at www.R3Design.org or e-mail us at president@r3design.org to get on our mailing list. Our first meeting will likely be on Thursday, September 18th at 5:30pm at a location to be announced shortly. We are always open to hearing your thoughts and project ideas and helping to get them off the ground.

I look forward to seeing you at the term's first meeting!

David Kadish
President and Founding Member, R3Design

Impact

STEPHEN SIU
4A SYSTEMS

When most people hear the word entrepreneurship; they automatically assume it involves starting a business. Contrary to this commonly accepted definition, Impact believes the term embodies something bigger – a mindset towards life that can help achieve any dream, no matter what it is. Impact promotes the entrepreneurial spirit, an attitude and way of life which embodies 3 key components: ambition, passion and determination.

Today Entrepreneurship in Canada is not being encouraged or promoted enough to youth through our education system. As students move through school, there is a lot of pressure to maintain grades, pursue higher education and find a corporate position after graduation. Impact believes that students should have the opportunity to be their own boss and explore the field of entrepreneurship.

With this vision, Impact supports a variety of programs to bring youth to the forefront of entrepreneurship in Canada. This year, Impact will be hosting Entrepreneurship Week Canada and the National Conference.

Entrepreneurship Week Canada joins 56 other countries around the world to participate in Global Entrepreneurship Week 2008, a worldwide effort to bring like-minded people together to promote and celebrate the spirit of entrepreneurship. From November 17-23, business leaders, young entrepreneurs and organizations will join the celebration and help run and participate in events dedicated to inspiring, educating and empowering youth. For more information about the campaign visit www.eweekcanada.com.

Impact's foundation and flagship event, the Impact National Conference, will be running for its 5th straight year and is the pinnacle of Entrepreneurship Week Canada. The conference takes place on November 21-22nd at the Westin Harbour Castle in the heart of Canada's business Capital, Toronto. The top 500 youth leaders and entrepreneurs from across Canada will gather to learn, discuss, and network with their peers and distinguished members of the Canadian Society. Are you a one of the top 500 youth leaders? Apply today at our website www.conference.impact.org!

About the Impact Entrepreneurship Group:

Impact is Canada's largest non-profit, student run organization committed to promoting entrepreneurship among youth across Canada. Impact is dedicated to helping youth realize their potential by connecting people, knowledge and ideas. Impact strives to be the voice of youth entrepreneurship in Canada today. For more information about the organization or our programs please visit www.impact.org.

UW Sustainability Project

ROB BLOM
'08 MATH

The University of Waterloo Sustainability Project (UWSP) is a multi-disciplinary, multi-opportunity FEDS environmental service. Any student with any environmental interest, whether critical, project-oriented or with interest in research, is welcome to join UWSP and partake in what it has to offer.

UWSP is very dynamic and flexible to your interests, time commitments and course requirements. We are a student service on campus, and are thus designed with a student lifestyle in mind. Whether you are interested in the executive board, campus or community activism, or joining a community of students that have come together with a common sustainably-focused agenda, there is a volunteer position for you. If your ideal project does not fall under one of our working groups, you are invited to create your own group and work toward your own goals with the help of volunteers and support of UWSP. Those that fall in this category are also encouraged to incorporate their project idea with the faculty of Independent Studies, and work hand-in-hand with IS and UWSP.

If you see an opportunity for progressive, environmental change on campus, or you think your course can be linked to help improve the campus environment, we can provide the resources, support and networking to make it your environmental initiatives successful.

With some help from us, you can work with other students from other faculties and work with professors who share your interests; all of which will bring an interesting perspective, level of expertise and guidance into your project.

Students will be working independently under the name of the UW Sustainability Project office on any projects, alone or in a group, that relate to creating a more sustainable environment at UW. The purpose of UWSP is to provide the opportunity for interdisciplinary student research. Students will be able to apply what they learn in their classrooms into real life examples on campus to solve environmental problems or improve the sustainability of the campus environment.

We also heavily advocate those groups on campus with similar mandates that focus on environmentally – and ethically-friendly activism. We help build the link between environmental issues and social justice, and connect with various campus groups to become an established, progressive and linked student community service.

We already have many events and volunteer opportunities come Fall, so drop by our office in room SLC 3102 anytime during office hours. Be on the look-out for UWSP on Clubs and Services Day in the SLC. We encourage all environmental ideas and work toward a greater environmentally-conscious community on campus.

Waterloo Space Society

NANCY SOONTIEN
'08 APPLIED MATH

If you're interested in rocketry, aerospace, astronomy, skydiving or anything else space-related, then the Waterloo Space Society is a club for you! Our events are focused around all of these fun topics and more. We are a campus-wide organization with members from all faculties committed to increasing awareness of space-related research and the excitement of the aerospace industry. The Waterloo Space Society is a chapter of several other independent space organizations including SEDS, CASI and the Mars Society.

Some highlights from recent terms include:

-Skydiving at the Grand Bend Sport Parachuting Centre

-Visit to the Ontario Science Centre

-Model rocket launches

-Guest speaker, Melissa Battler, commander of FMARS 2007

-Visit to the Controlled Environment Systems Research Facility at the University of Guelph

-Discussions on terraforming Mars and human space exploration

-Guest speaker, Bob Richards, founder of the International Space University and Odyssey Moon Ltd.

If you are interested in gaining leadership experience as an executive then please contact waterloospacesociety@gmail.com for more information. Feel free to visit our website http://spacesoc.uwaterloo.ca and join us for our first executive meeting Wednesday, September 10th at 5:30pm in E2 1306D.

STEP

LAWRENCE YEH
2T CIVIL

The Sustainable Technology Education Project (STEP) is a student-driven organization that aims to promote and demonstrate renewable energy solutions. STEP has developed many initiatives, such as the Photovoltaic Solar Array on the roof of Federation Hall. STEP is currently in the process of implementing a solar thermal installation at the Village 1 residences, where it will be used to heat the water in the cafeteria, showers, and bathrooms. On the horizon, there are plans to install a wind turbine on campus, as well as a micro-hydro installation.

Undergraduate and graduate students of all faculties are welcome to join STEP, as there are activities that cater to everyone. The diversity of STEP's membership has always made things fun. With STEP, you will learn valuable transferable skills, you will learn about renewable energy and other sustainable technologies, and you will meet lots of cool people. A fun, engaging working environment is one of the main reasons why students join STEP. Besides, being green has never been cooler – and we all want to be cool, right?

STUDENT CLUBS AND TEAMS

UW Underwater Technology Team

JULIANNE KLINE
2B MECHATRONICS

Although robotics has been evolving for many decades now, we are constantly pushing the envelope to make robots work in all environments, be all sizes, and do wider ranges of tasks. The University of Waterloo Underwater Technology Team ((UW)^{2}TT) is devoted to building underwater robots and developing innovative technologies for underwater applications.

Since 2006, ((UW)^{2}TT) has been building its first underwater robot, Neo I. The robot featured a unique six-degree-of-freedom control method, head-controlled pan-and-tilt camera, an eight-thruster propulsion scheme, and an Industrial Steering Device (ISD) for position communication.

The robot competed in the 2007 Marine Advanced Technology Education Center (MATE) Remotely Operated Vehicle (ROV) Competition, where seven team members travelled to St. John's, Newfoundland and Labrador to test their year's work. This year, another six team members brought Neo I to the 2008 MATE ROV Competition in San Diego, California. The competition helps to build well-rounded engineers by having a strong communication component to the competition. Teams are required to write a technical report, present a technical presentation, and create a technical poster to win points. In addition, team members learn to solve problems quickly, sometimes at the poolside.

Overall, the University of Waterloo Underwater Technology Team is an awesome team that accepts team members of all skill levels and backgrounds. So feel free to come on out to the recruitment meeting, which will be held as a collaboration with the University of Waterloo Robotics Team (UWRT). We are looking for students who are interested in machining, construction of electrical components, programming, and possible design work. We are also looking to expand the administrative side of the team, so anyone interested in website design, graphic design, marketing, communication or budget management should also attend the recruitment meeting. We look forward to meeting all of you!

UW Robotics Team

PATRICK MARTINSON
4A MECHATRONICS

So I'm sure you've already heard this 15 times, but I'll say it once more for good measure: don't let school and homework dominate your time at UW, and find something else you like doing and get involved. You're surrounded by really brilliant and motivated people, and the opportunities that can be gained from working with these people on projects outside of class are pretty much endless.

Now that that's all out of the way, let's talk about something more exciting, like robots.

Robots are pretty damn cool, but it's hard to say how much we can really trust them. If movies and *Battlestar Galactica* have taught us anything, it's that at some point the robots are going to try and rise up against their pink, fleshy oppressors, and we'll have to do something about it. At the UW Robotics Team, we make a priority of understanding all the work that goes into making a robot, so that when the time comes we'll know how to unmake them.

While that's more in the 'Long-Term Goals' section of our business plan, these days UWRT (or WatBot, as the cool kids are calling it) focuses on building small to mid-size mobile robots for competitions. Members ranging from first to fourth year, take on the programming, electrical design and mechanical fabrication of the 'bots, and this year our main projects will include an underwater remote-operated vehicle with 6 degrees of freedom, an autonomous lawnmower, and a multi-robot system made up of a converted ATV and 4 smaller chassis that will be used for landmine detection and removal. One thing that separates us from some of the other student teams on campus is that we recognize that not everyone has the knowledge to start working on these larger projects when they're in first year, and so in the Fall we'll also be hosting our own Mini-SumoBot competition. In this, teams of 3-5 students with little or no experience in robotics can complete a simple robot to push others like it out of a ring, with a rockin' tournament and fantastic prizes at the end of the term!

We welcome new members from all disciplines, not just Mechatronics (what kind of ridiculous, made-up name for a program is that anyways?), and if you want any more information you can check out our website at http://uwrobotics.uwaterloo.ca.

We'll be holding a recruitment meeting in the second week of classes where you can see some of the bots up close. Posters for this should be materializing soon, so keep your eyes open and we hope to see you there.

Waterloo Aerial Robotics Group

TRISTAN LALL
'08 MECHANICAL

Since 1997, the Waterloo Aerial Robotics Group (WARG, to its friends) has been dedicated to the design, construction, operation, and on rare occasions, destruction of all manner of air vehicles. Originally organized by a small group of engineering students, in the years since its inception, WARG has seen over 300 students become members of the team and participate in numerous competitions and research projects. The team's focus was initially autonomous model helicopters, but with the coming of new competition challenges, soon broadened to include a variety of teleoperated and autonomous model airplanes, a temperamental ducted-fan air vehicle, quad-rotor prototypes and development craft, and most recently, the impressively-large Hyperion aircraft. This 4-metre-long aircraft was designed and built from scratch by WARG members, and is capable of carrying a 10-kilogram payload and air-dropping subvehicles by parachute.

In parallel with the airframe development work, WARG has also been thoroughly involved in the design and integration of avionic systems. Early in the team's history, WARG developed and implemented custom FPGA-based image capture units, and interfaced them with miniature computers. More recently, the team has developed an autopilot system based on a computer that fits in the palm of a hand. Other significant efforts have included sensor suites with global positioning (GPS) and inertial navigation (INS) capabilities, and an airborne image-processing system designed to recognize building features in real time from a full-motion video stream.

For the last several years, WARG has been primarily focused on the International Aerial Robotics Competition (IARC), held at an American military training facility in Georgia. In the most recent iteration of the event, held this past July, WARG demonstrated its Hyperion air vehicle and its payload for the assembled crowd of fellow competitors, judges, academics, industry representatives and media, earning an award for the most innovative vehicle system, a cash prize, and sixth place overall.

Now, with the most recent IARC challenge concluded, it is once again time for WARG to choose a direction for the future: beginning this fall, the team will be looking for new members to continue the team's pursuit of aerial robotic mischief, and will be deciding which new challenges to tackle in the coming academic year. Whether you're a first-year undergraduate student new to the school, a more seasoned student looking for a new challenge for a design project or thesis, or a faculty member with parallel research interests, WARG is interested in you.

If you're interested in WARG, send an e-mail to warg@engmail.uwaterloo.ca, and we'll let you know the date and time in early September when WARG is holding its recruitment and information session. WARG is an equal-opportunity student team, so we welcome members from all disciplines and faculties, no matter how tenuous the connection to aerial robotics. In fact, while the team is mostly composed of Mechanical, Mechatronics and Electrical Engineers, the team would derive immediate benefit from people with Systems Design, Management and Software interests.

If you have any questions, feel free to direct them to WARG's team president, Jason Dyck (by e-mail to warg@engmail.uwaterloo.ca, or in person in E2 2366).

Waterloo FSAE

ADAM HOWARD
3N MECHANICAL

On almost every weekend, the sound of a screaming 600cc engine can be heardemanating from C Lot. This beautiful noise comes from the UW's Formula Motorsports team's single seatER, formula style racecar, designed to compete in the Formula SAE challenge. The team designs and builds a new SPACE frame chassis car every year for this competition, and has done so for over 21 years in a row. The core team consists of mainly fourth year students, who design the subsystems as part of their design course, but a larger part of the team consists of first, second, and third year students. These students join the team for a variety of reasons. Some like going fast, some love cars, while others are interested in getting a chance to apply their learning in a more practical, hands-on way. Business-minded students also find the team to be a great opportunity to hone their skills as well.

During the fall semester, the team holds chassis build days, where interested students are invited to help build the tube frame chassis – a great opportunity to learn how to use the machine shop, and gain practical skills that co-op employers are desperately looking for. The team is quite dependent on the help of dedicated first year students to help design and machine components, assist with larger systems, and work with the team. Team leader Alex Berlin says, "Without their help, we wouldn't be able to make it to the competition. We are always looking for interested, enthusiastic students to help out." The competition in which the car is raced is held in Detroit early in May and is also a great way to meet industry representatives.

Past team members have gone on to work for LeMans teams, NASCAR teams, and numerous other racing groups. Since the number of teams entered in these competitions every year is approximately 120, with an average of 20 people per team, there is an extremely large number of professional engineers who both know about, and have a lot of respect for students who work on Formula SAE teams. If you are interested in cars, love racing, or just want a fun and challenging team to spend some spare time with, come out to the UW Formula Motorsports garage, located in E3. Our doors are always open.

WOMBaT

KATHERINE OLSEN
3N MECHANICAL

WOMBaT or Waterloo Off-road Mini Baja Team is a group of students committed to building and testing a rugged all-terrain prototype vehicle. The group is comprised of fourth year students who design and build a brand new vehicle to compete at Baja SAE's Midwest competition every year, and younger students who maintain and improve a former vehicle to take to the same competition. It provides hands on experience, not to mention it is fun to drive! To join the team or learn more, drop by the cage in E3, or e-mail kolsen@uwaterloo.ca.

UW Alternative Fuels Team

FARAZ SYED
'08 CHEMICAL

Looking to get more out of school than just lectures and coop terms? Interested in learning more than just engineering? Then check out the University of Waterloo Alternative Fuels Team (UWAFT)! Since 1996, we've been giving students the opportunity for hands-on engineering through designing, building and testing alternative fuel vehicles, as well as business experience through sponsorship and public relations.

UWAFT made history in 2006 by being the first student team to ever build a hydrogen fuel cell car. As part of ChallengeX, a 4-year major North American competition, we converted a donated car to operate on fuel cells and emit nothing but pure water! We wrapped up the competition this year by placing a very respectable 4th place overall, which is amazing considering the incredibly advanced technologies we were using.

Now we're back with EcoCar, the next big competition from GM and the U.S. Department of Energy. It's a three year competition and we're looking for fresh faces to join our team. The challenge will be to redesign a Saturn VUE for improved fuel economy and emissions. Joining the team as a first year is a great way to start learning about the team, improving presentation skills at outreach visits and enhancing your technical skills by learning some of the vehicle design tools we use. You don't have to know a lot about cars to join – beginners from all disciplines are welcome! UWAFT links all the disciplines together so that in the end the individuals involved will become much more versatile engineers. Our members get to learn about the big picture rather than just their specific tasks associated with their discipline.

Because of the competition's high profile, we're always travelling to one workshop or another, networking with leaders from some of the most important automotive companies in North America. Being involved with UWAFT is a great way to get a coop job too! Many of our members have found coop jobs or even full time jobs with places like General Motors, Azure Dynamics and Argonne National Labs.

An experience with UWAFT is one that you'll never forget, as you become a well rounded engineer and make great friends within the team. Be sure to check out our booth during Frosh Week and come to our recruitment meetings held in September!

Website: www.uwaft.com

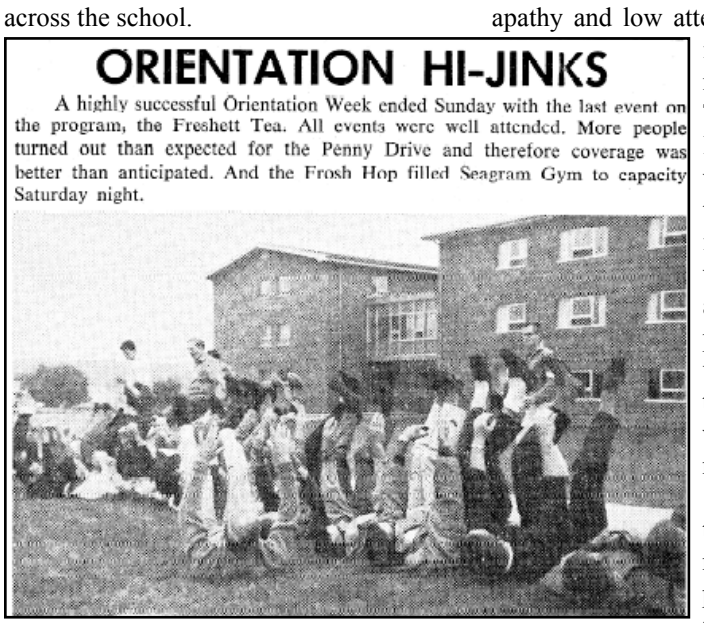
E-mail: recruit@uwaft.com

History of Orientation Week

ROSS RICUPERO
4N CIVIL

The oldest recorded discussion of Orientation Week at the University of Waterloo is from the October 13, 1961 edition of The Coryphaeus, the University of Waterloo's first student newspaper. It's a simple article that welcomes freshman engineers to the school and the Engineering Society. It also gives thanks to Dave Smith, chairman of the Initiation Committee (Orientation used to be called initiation) and announces the Initiation Dance as part of WA-WA-WEE '61 (The old name of Warrior Weekends, an event that still happens today).

The September 27, 1963 edition of The Coryphaeus gives even more details on "initiation" with an article discussing the school-wide scavenger hunt (apparently they acquired things like wagons, tractors, hay bales, snow fences and pictures of someone named Brigitte Bardot), a game to measure the length of a city block with hotdogs, a challenge to make a line of pennies stretching from Kitchener City Hall to Waterloo City Hall (which is apparently approximately 140,000 pennies), the (seemingly) annual 'Froshman Hop' dance, and some unknown event called the 'Hootenanny'. Each faculty organized their own Initiation program and worked with the Orientation Committee, which ensured the individual programs worked across the school.


ORIENTATION HI-JINKS

A highly successful Orientation Week ended Sunday with the last event on the program, the Freshett Tea. All events were well attended. More people turned out than expected for the Penny Drive and therefore coverage was better than anticipated. And the Frosh Hop filled Seagram Gym to capacity Saturday night.

In '64, '65, and '66 even more traditions had started to form. First year students from Arts, Science and Engineering (the only faculties at UW at the time) were all awarded 'beanies' or caps at the beginning of (the now called) Orientation and the cheer of "I'm a dirty rotten dead horse and I stink!" was used throughout the week, accompanied by students falling to the ground, laying on their back and sticking their arms and legs in the air. The Frosh Queen competition, in which 'Freshettes', or female first-year students, competed to be elected to the position complete with sash and crown, became a major event. The penny-drive also became Slave Day, where first-year students would be sold to members of the community to help them with whatever they choose, or for charity purposes.

In 1967, Stewart Saxe, a political science student and head of the Orientation Committee, re-imagined the entire week and introduced the big-brother concept. All first year students (there were only 2,200 in 1967, a third of the 6,000+ we expect this year) were divided into groups of ten which were overseen by archons, a single upper-year student leader, which stayed with the group the entire week. This year continued the method of each society running their initiation programs, and the orientation committee overseeing the entire thing.

1967 was also the first year that an aerial photo from Orientation Week was published. The 360 strong group spelled "Hagey" across the Arts quad to salute then-president J. G. Hagey (the same Hagey that Hagey Hall is named after).

It was during the late 1960's that the bulk of Orientation Week was moved to the control of the Federation of Students (FedS). While the student societies still planned and ran programming for their specific faculty, many of the larger events would be planned by FedS. It's from this point throughout the 1970's that FedS took the Orientation Week of the 1960's and made it into a month long Orientation program with varied social or educational events each day from the start of September to the end. This included many high-profile concerts such as Meatloaf, Gordon Lightfoot and Ike and Tina Turner, as well as speeches from major political figures, cabinet ministers, MPPs and radical leaders.

While the much expanded programming offered more choices for incoming students, it was during this time that student apathy and low attendance began to take its toll. Concerts lost money (the Ike and Tina Turner concert lost $6,000 in 1972, which is over $30,000 today accounting for inflation), speeches went unattended and acts cancelled or simply didn't show. Reviews of the Orientation program varied wildly from condemnation to enthusiastic.

It was during this time that the Engineering Orientation program moved away from the Slave Day charity, and began running the Bus Push charity (which has continued annually since then). 1969 also saw the Engineering Stag event of Orientation Week, which was little more than a drunken strip-tease for first-year students.

It wasn't until 1978, when the LLBO took dispute with the University's 'beer tents' that programming needed to be reduced and concerts rethought. The LLBO refused to license the outdoor tents that were part of Orientation Week in years past, reducing the amount of money that the Orientation program had to use, preventing headline concert acts and major guests.

Then began the dark years (or the years where written records become spotty). It's expected that Orientation Week continued this way for the 1980's and early 1990's. Student societies continued running programming for their faculties, and the Federation of Students continued running the overall program. It was during an unknown Orientation Week during the 1980's that the Education Committee was founded, and that the engineering hardhats became a major symbol. These have stayed as key components of Engineering Orientation Week since then. The oldest record of the Education Committee is an Orientation Week video from 1988, and hardhats could be over a decade older than that.

At the end of the dark years, Engineering Orientation Week was a tight, multi-day program packed with events. Incoming students would go through a program similar to the program we have now, but that had very distinct differences. In 1993 a UW Orientation Manual was produced and distributed to the groups running the faculty programming and soon after a major part of Orientation Week today was founded; the Federation Orientation Committee (FOC). The goal with FOC was to have better collaboration between the independent groups running various Orientation Week programming and the Federation of Students, allowing a more efficient Orientation Week overall. This started the process of Orientation Week becoming more regulated and controlled, something that would take the unorganized month-long Orientation programs of the late '70s and '80s, to the smaller, week-long programs of the '90s. By 1996, a schedule that resembles the modern day Engineering Orientation Week began to emerge: Aerial photos were taken (these can all be seen in the POETS lounge), they earned their hardhats, and they all met the Dean. However, they also competed in chariot races, paraded through town and had organized off-campus parties, events long since banned or modified.

It was during 1997 and 1998 that a new program started to address major concerns highlighted in an Orientation Student Survey conducted in 1994 and 1995. This survey concluded that there was a dangerous undercurrent of behavior across all Orientation programs. From discriminatory chanting to exclusive programming and a dependence on drinking, it was seen that there was a fundamental problem with Orientation Week; the leaders themselves. There was no formalized Orientation Leader training program for leaders to go through, and there were few checks and balances on the actions of these leaders too. People simply ran Orientation Week like it had been run for the year they went through it and every year before that.

It was because of this that the Provost's Advisory Committee on Orientation (PACO) was founded, and PACO training was implemented in 1998. This training, mandatory for all Orientation leaders, covered things like drinking and drugs, inclusivity, and non-discrimination. While some students cried out that this was gutting the Orientation Week they knew and loved, it ultimately led to the modern Orientation Week we have now, which many believe to be better than ever before.

With the double cohort of 2003, a large percentage of students were now entering university at age 18; younger than the legal drinking age. This became a problem as many planned event during Orientation Week were 'wet' events where alcohol was served. A controlled environment was implemented, with 'beer gardens' allowed at certain events and each organizing group allowed to have a single 'wet' event for their faculty or residence.

By 2004, PACO was dissolved and we were left with Orientation Leader Training, the modern version of PACO leader training. 2004 was also the last year that Orientation Week officially included alcohol with a beer garden at the Saturday night Toga party. Once Orientation Week 2004 closed, alcohol wouldn't be part of the week again.

In 2008 Orientation Week is nearing 50 years old, involves over 8,000 first-year students, 1,000 upper year students, has a budget in the hundreds of thousands, and the support of countless sponsors and contributors. While it may be completely different from the Initiation of 1961, Orientation Week 2008 has built upon the past decades; all of the conflicts and problems, changes, successes and failures have been rolled into the week.

While it may not be perfect, it is a continuation of a tradition started soon after the University of Waterloo was founded, and it represents the unconventional history and future of this school.

The Iron Chef Recipe

Chicken Fingers & Fries

ERICA WAUGH
4N CIVIL

Tastier and Healthier than Take-Out!
Serves 2

Ingredients:
2 Extra large russet potatoes (we're talking HUGE!) or equivalent
Olive oil
Montreal Steak Spice
2 Boneless, skinless chicken breasts
2 Large eggs
1 Cup Italian Style breadcrumbs

For fries:
Pre-heat oven to 425ºF
Cut potatoes into 1 cm width fries, place on large baking sheet. Drizzle with olive oil just until coated. Toss fries around to spread oil over the pan and to coat fries completely. Sprinkle with Montreal Steak Spice. Once oven is ready, place fries in centre rack. Set timer for 20 minutes. Flip fries after 10 minutes.

For chicken fingers:
Cut chicken into large wedges, about 5-6 per breast. Crack eggs into a shallow dish and lightly beat with a fork. Put breadcrumbs in a second shallow dish. Dip each chicken piece in the egg and then coat with breadcrumbs.

Once the 20 minutes has passed for the fries, remove from oven and push fries to one end of the tray. Place chicken fingers 1 inch apart. Return tray to oven for another 20 minutes.

Depending on how you like your fries, you may need to adjust the baking time. I like mine much smaller so the first part of the baking is only about 15 minutes before I put the chicken in. The chicken will always take about 20-25 minutes.

Things That Every Undergrad Should Know

ANN-MARIE WINKLER
'08 MECHANICAL

In 4 and 2/3 years, you seem to come up with a lot of things that you wish you had learned earlier. So here's a shortened list of advice compiled from the upper years to help you out. Hopefully it teaches you a thing or two that you can find useful.

On matters of fun:

-"Work hard, play harder" is more than just a motto. It's a way of life.

-An awkward morning beats a boring night.

-Every other faculty except Math has girls. If you get invited to an Arts party, GO!

-Engineering boys from Ryerson love Engineering girls from Waterloo.

-When the doors of POETS are open, you can go in! You might just enjoy it.

-After you graduate, you're not going to remember the tests that you take or the grades that you make. You're going to remember everything else.

-You will never have a better opportunity to meet new people, make new friends, and define who you are and will be for the rest of your life, than you do in university. Take advantage of this opportunity while you still can.

-Always be a good wingman. You never know when you might need one yourself.

On alcohol:

-If you don't drink, you can still have fun at events where other people are drinking.

-If a friend chooses not to drink, respect their decision, whether it's one time or always.

-Never lose your drinking buddy.

-Always have a Sharpie on hand when drinking.

-Always beware the guy with the Sharpie when drinking.

-If you get invited to June Lowe's strawberry daiquiri party, GO!

-Just because you CAN drink something, doesn't mean you should.

-The drunk tank may not be comfy, but it's a safe place to spend the night if you've got nothing else.

On academics:

-It's okay to ask for help!

-When you're looking for help, don't always look within your year, and don't always look within your discipline.

-Find something to do other than school, or you WILL lose your mind!

-Your TAs are getting paid to help you! Don't ever let them forget that!

-Your WEEF TAs are only getting paid to help you from 8:30am – 4:30pm. If they're helping you outside that time frame, don't ever let yourself forget that!

-The point of an Engineering education is not to learn physics, calculus, chemistry, or circuits. The point of an Engineering education is to learn how to learn.

-In the words of Don Fraser, "If you're having trouble with your computer programming, have another beer and try again."

-If something happens to you that may affect your performance, document it, even if you don't think it will matter in the end.

On housing:

-When you're looking for housing, if it looks like a hell-hole, it probably is!

-Your landlord must give you at least 24 hours notice prior to entering your home, except in the case of an extreme emergency or if you call him/her.

-The Waterloo Tenant's Act can be found at http://www.ontariotenants.ca/law/act01.phtml, familiarize yourself with it and it will save you a lot of grief.

-Always check inside cupboards and under the sink for things such as mouse droppings before committing to a house.

-One roach in the hand is worth a thousand in the wall.

-You can default on a lease if there is a problem such as vermin.

-A nice house is never worth a bad landlord.

On saving money:

-Volunteering for events can get you both free food and free clothing. Don't ever underestimate this. A well-informed student can eat for free for up to a week at a time.

-Bulk pasta and tomato sauce is both cheaper and healthier than Kraft Dinner. Lentils and rice also beats KD.

-Learning to cook will save you money.

-The C&D is the cheapest place to eat on campus, possibly even in Waterloo.

-Dinner at East Side Mario's should ALWAYS last you at least 2 meals, 3 if you do it right.

-Never bring a debit or credit card with you when you go drinking. Only bring the amount of cash you want to spend, and no more.

-Having a party at home is cheaper than going to the bar. Having a "movie" night at home is even cheaper.

-Just because a fee is refundable doesn't mean you should get it back. Always take the time to learn what the money is for before you get a refund.

On general survival skills:

-Never go anywhere without your WatCard. You never know when you may need to catch a bus, get a student discount, etc.

-Mary Bland is the source of all knowledge. Do not piss her off, and show her the respect she deserves.

-It's cash only and no backpacks in the C&D

-Don't stir your coffee like a maniac when you're in the C&D.

-If you can't see all of the dishes in the sink, it's time to wash them.

-Growing mold in your kitchen/dining room/bedroom is not a science experiment that will help you get places in Engineering.

-You have plenty of free time. Learn to recognize it by getting your act together.

-If you try to touch the TOOL before you get your ring, expect to get beat up.

-Conferences are a great way to meet new people, make new friends, and make industry contacts.

-Volunteering is a perfectly legitimate way of getting volunteers.

-Make friends with upper-year students.

-Everybody needs at least one really good friend. If you are that friend to someone, don't ever let him or her down.

-The only time in your life where people will beg you to take on a leadership role is when you are in university. Take advantage of that.

The Adventures of Dangerman

Or How I Learned to Stop Worrying and Love the First Year

Dearest Reader,

Everyone always asks me, "Why do they call you Dangerman??"

Sure, I'm the greatest knife-fighter in the Faculty of Engineering, before the Dean himself[1]…and yeah, I once got a grizzly bear pregnant…At the end of the day though, the real reason is because I came to the University of Waterloo, the meanest, baddest, break-my-foot-off-in-your-ass Engineering school that ever *was*, **is**, or *will be*.

Here, even the gangliest, scrawniest, examples of disappointment-incarnate, are beaten and purified into a golden brilliance of unrivalled know-how. Even the people tossed out on their asses from these hallowed halls of learning are revered amongst others tossed out on their asses from other less-worthy institutions.

Blood, sweat, streaking, calculus, karaoke, and danger; this has been my story. As you can guess, I am a man of few regrets, and enrolling in Engineering at the University of Waterloo is certainly not among them. If anyone tells you differently he or she is a filthy liar, and I will fight him or her.

Four-score minus seventy-six years ago, one terribly cautious boy was admitted to this very establishment (this boy was me!). At the time I probably got all the advice I fundamentally needed. "This is where you go if you get sick…" (Health Services) "Those folks for bus tickets, movie tickets, condoms, and reasonably priced prostitutes" (Turnkey Desk) "There for the best damn 'spicey on a bun' in the universe" (V1 cafeteria).

Still, there are some things I wish someone had pointed out to me.

Dangerman's Top 10 Survival Tips for First Year:

1. Enjoy the company of that pretty girl in your frosh group while it lasts, she'll have a boyfriend in 2 weeks, and it probably won't be you. She'll stay with that loser for 3 years at least… (i.e. the music in this twisted game of musical chairs cuts out quickly)

2. Waterloo is the Promised Land for all those who believe "the Geeks shall inherit the earth". Anime, D&D, Star Trek, World of Warcraft – you name it, we got it. Think of the lamest thing in the universe that you like, and I guarantee there are a dozen other people in your year alone that will like it too. Get off your ass and make some friends.

3. Don't hermit yourself up! The sooner you go out to an EngSoc event, the sooner your time at university will turn down the suck. The student teams are also pretty awesome. Personally, I like writing for *the Iron Warrior*, it's pretty kick ass.

4. Go to your lectures. If you've been out late being irresponsible, go pass out in whatever room your first class the next day is in. Trust me, it works.[2]

5. Don't date anyone from McMaster… just trust me here.

6. Learn the Greek alphabet. You'll feel like a whole lot less of an idiot if you don't have to ask your PHYS 115 professor, "What does that little squiggly thing mean?"

7. No interviews? No problem! Check with parents, family friends; don't rely too heavily on the co-op people for your first work term. They work hard, but they don't work miracles.

8. Crappy résumé? Go find someone smarter than you and take a look at his or hers. I based my resume/cover-letter off a guy doing PhD studies at MIT[3]. I get more interviews than Jesus[4]. Also, résumé critiques are usually pretty helpful.

9. If nothing else, remember to stop by POETS in CPH. This little hole-in-the-wall engineering hangout is the nexus of all good things in the universe.

10. If you're worried about getting fat, stop worrying and just think of the Buddha with his girth and good nature. The 'spicy on a bun' is worth it (seriously, it's incredible).

One last thing, all BS'ing aside, no matter how big a loser you think you might've been in your life so far, you can start over here and be whatever you like (exhibit A: Dangerman gestures to himself and nostalgically recollects the cautious boy of 4 years previous). I promise you will have more fun, do more crazy junk, and meet better people here than any other time or place in your life. If at any time you're unsatisfied, feel free to bother me personally and I will correct your misguided ways.

And, when it gets hard, just remember: Dangerman loves you.

Sincerely,

Dangerman
4A Chemical Engineering
eric.dangerman@gmail.com

1. Never cross blades with the Dean Machine, they don't call him Snickersnee Sedra for nothing!

2. Thank Jesse D. in Civil for that little nugget of brilliance.

3. Obviously don't copy… I mean formatting and whatnot.

4. Admittedly, Jesus probably has more important things to do with his time.

THE IRON WARRIOR RECOMMENDS

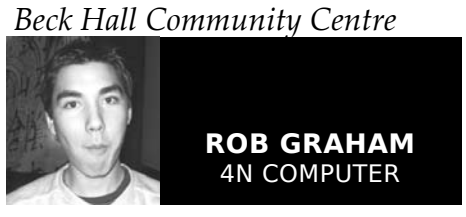
Website

abebooks.com

A great place to get international (= cheaper) editions of textbooks. While buying textbooks from the used bookstore and upper-year students save you a lot of trouble (shipping, credit cards, etc.), abebooks is the best place for buying newest editions that are not available used. You can easily save up to 60% compared to the UW Bookstore for new textbooks.

Recreation

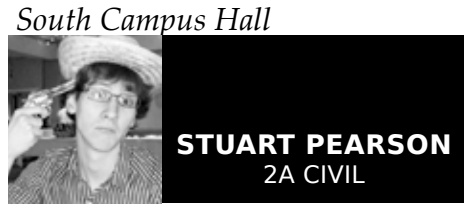
Beck Hall Community Centre



Beck Hall is one of the UW Place residences located south-east of the main campus and it houses a decent after-hours entertainment facility in the lobby. By after-hours, I simply mean "open until late," not X-rated or promiscuously entertaining. The facility includes ping pong, foosball, board games, movie rentals, and much more!

Food Service

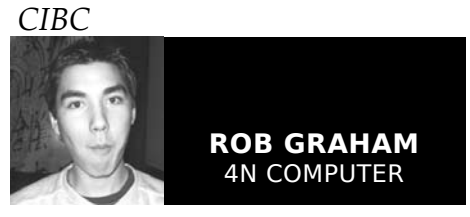
South Campus Hall



Ah, V1 caf food, how I miss it so! Well, not exactly. If you're looking for a great lunch without having to trek all the way back to res, you should investigate SCH. Right across the foyer from the bookstore is a set of stairs to a large dining area. The food is better than most places on campus, with weekly specials including roast beef, fish, and wraps.

Bank

CIBC



A CIBC bank account so that you can withdraw money on campus for free! The campus houses CIBC ATMs to make accessing your hard-earned cash that much easier. There are machines in DWE, DC and two in the SLC. Sure, the ATMs gratefully accept debit cards of all nationalities, but avoiding the $1.50 surcharge is a frugal tip for the wise!