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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY | VOLUME 30 FROSH ISSUE | TUESDAY, SEPTEMBER 8, 2009

http://iwarrior.uwaterloo.ca

Welcome to the *Battle of the Civilizations!*

MARISSA BALE & MATT HUNT
SUPERHUGES

Welcome, Frosh, to the Battle of the Civilizations! By now you've probably received a couple of mail-outs from us, and visited our website (http://engsoc.uwaterloo.ca/orientationweek/index.html), so you probably know a little about the week. We hope that you've arrived here as excited about the week as we are, and we're sure it's going to be one of the best weeks of your life!

If you're reading this, you've probably found your colour group's headquarters, and you've also met a few of your leaders – your Bigs and Huges. Talk to them as much as you can, because they've all been where you are now and they can tell you all about it. It wasn't so long ago that they were all Frosh, so they know how you feel. It's also their job to answer as many of your questions as they can, so ask away!

You've probably also seen a lot of new faces today. Don't be afraid to go talk to someone completely new – they probably feel the same way you do! There's a chance that they could be in your class, and they could turn out to be the best friend you'll make during your time here.

So, now that you're in your headquarters, you've met your leaders and you've received your Orientation Kit full of sweet stuff, what's next?

Tuesday is a busy day, packed full of goodness. In the morning, you'll meet the Dean, as well as the Education Committee. Lunch will be spent with your faculty, where you'll be able to meet students in your class from every colour group, as well as some of your professors. You'll also be earning your hardhat with your fellow Frosh, as well as the Bigs and Huges. Protect your hardhat, and everything it represents. Once you've earned your hardhat, all of the Engineering Frosh and Leaders will come together for the Aerial Photo.

On Thursday, you'll be able to really get some use out of your hardhat at Junk Yard Wars! Every civilization has its unique weapons, and you'll need to use all of your ingenuity and the limited resources to create a ballistics weapon to beat every other team's. You'll also be able to meet representatives from many of our student teams at our Student Teams Lunch.


Micheal Seliske

After lunch you'll have a chance to meet the Engineering mascot – the Tool. It loves spirit and loud noises, so be ready to cheer and bang your hardhats together!

The final Engineering-specific event is the Friday night Murder Mystery Scavenger Hunt. Each team will participate in mini-events, as well as try to gather items from an acquisition list in order to gather clues to try and solve the Murder Mystery!

Apart from the Engineering-specific events, there are a few cross-faculty and cross-campus events. The Wednesday Night Mixer, while not a cross-campus event, is a night of fun and games run jointly by Software Engineering, Engineering, Math and Arts. Monte Carlo Night, on Thursday, is a semi-formal mock-casino night. There's also a dance floor and other cool events, so get dolled up and come on out! Saturday Night has a variety of events, including night time campus tours, a video games room, and the Toga Party. There's something for everyone at all of these events, so come on out and have fun!

We, as your SuperHuges, are part of the Engineering Federation Orientation Committee (EngFOC) and are here to make this week as awesome as possible for you. What you put into it is up to you. If you have any questions, or just want to say hi, feel free to come and talk to us at any point during the week. We'll be wearing bright yellow vests or jackets all week.

Who will be the conquering civilization?!


Your Superhuges: Marissa Bale and Matthew Hunt

A Message from HEADCOM

HEADCOM
EDUCATION COMMITTEE

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.

Letter From the Outgoing Editor

Welcome to UW Engineering!

MICHELLE CROAL
OUTGOING
EDITOR-IN-CHIEF

Welcome first years and congratulations on joining one of the finest Engineering schools in Canada! Whether moving away from home for the first time, looking for your first job or making a new circle of friends, your first year of university can be challenging and intimidating, but it will be exhilarating and rewarding as well!

You may already have a vague idea, but engineering is tough. I'm talking crazy tough. Be prepared for the workload to come of never-ending assignments, lectures, labs and all-nighters in Pulley… wait sorry – FROSH WEEK! Right! All that work starts soon enough, but get out there and enjoy your frosh week! The people you meet this week may become your best friends (or you may never see them again), but either way I guarantee you'll still be talking about your Frosh Week well into your time here!

Also, you will be told this again and again during the week and again after that: Get Involved! Engineering is hard, and you're going to need social networks and stress relievers to help get you through and put things in perspective. There is a huge variety of opportunities here for you to get out and meet people with similar interests – everything from technical design and competitive teams to just for fun events and charities. Come on out to EngSoc events and look to other faculties to round yourself out. For example – Math has a cheese club that meets every week to - guess what? Eat cheese!

And now I get to the part with the shameless plug about *The Iron Warrior*! *The Iron Warrior* is the official newspaper of the UW Engineering Society – entirely student run, we focus on bringing you news, events, opinions and humour, specific and relevant to students, engineers and the Waterloo community. Since 1980, we've published 5 issues a term (roughly biweekly), which are distributed around engineering, campus and beyond Ring Road to alumni, local businesses and online. My time here all started when as a bright eyed enthusiastic froshie much like yourself, I wrote a letter to the editor at the time. From there I started writing, then helping out and then all the way to the top as Editor-in-Chief! It has been one of the most rewarding things I've done with my undergrad, by far, even on the days when I was here until 2am doing layout and had to go home and write a report afterwards…. Oops. Anyway my point is that it's very easy to join IW – just drop us a line at *iwarrior@engmail.uwaterloo* or come by and say hi in our office in upstairs E2 2349A (just upstairs from Wedge Lab and before the machine shops in E3). Unfortunately, my time here as Boss is over and I'm headed off for co-op, but come say hi to Trevor! He'll probably be in at all/any odd hours, especially on production weekends when we put the paper together. We're looking for people with an interest in writing and journalism, layout design and production, distribution and more! Oh, and before I forget – we are looking for two volunteers to fill the Student-at-Large positions. With very minimal commitment of two meetings per term and reading an early release of each paper, it's a good way to keep up with what's going on around campus (and have a voice on potentially controversial topics!). We need one from A- and B-Soc, so give us a shout if you're interested!

University is about studying for sure – but there are a lot of adventures ahead of you too! Co-op may see you moving all over the province (if not the world), but the halls of Engineering will become your second home. Speaking of halls, you'll be seeing the completion of much of the expansion and new buildings Engineering has been promised in the last few years - so make use of them! Don't be afraid to make friends, fall in love, walk home from Kitchener, go on exchange, watch movies at POETS, buy CnD coffee, join us on Pubcrawls and so many more. What other advice can I offer you (besides what so many others have already covered in the rest of the issue)? Learn how to repair a flat bike tire. There are two types of packing: the colour/season-coded take on work term vs. leave at home that you always intend to do and the 5 minutes before your parents show up oh-my-god-I-don't-know-where-my-cell-phone-charger-is packing. Learn to optimize both. Oh, and don't rent basements. They're freezing in winter and full of beetles in the summer. Trust me on this – it's not worth it.

Once again, welcome to UW Eng and remember that it's up to you to take what you can out of the next five years. Good luck!

Letter From the Incoming Editor

TREVOR JENKINS
INCOMING
EDITOR-IN-CHIEF

"This is the universe. Big isn't it?"

Well- this might not actually be the universe but this is *The Iron Warrior*- the official newspaper of the Waterloo Engineering Society. We are the primary mechanisms for keeping you informed about the happenings on campus- whether they're EngSoc related, a special speaker, or some randomly awesome prank that the university made sure got cleaned up quickly. I strongly encourage you to read our new editions the minute they come out- not just to stay informed, but also for the other diverse content, whether it's satirical, opinion, or a great new features we'll be having.

So that's enough about us. Let's talk about you for a bit. Welcome to Waterloo! If you're reading this, then you've decided to sell your soul for an iron ring. While the ultimate out come will be worth it in the end (good paying career, becoming a respecting professional, hand bling, etc.), getting there won't be easy. You'll be overworked, underfed and tired. Very, very tired. But with hard work and determination, you should be able to pull through. 1A won't be a problem for most of you, but 1B will be a slap in the face if you're not prepared.

This issue has been specifically designed for you- the frosh- to introduce you to just some of the activities, services, and events that are available to you. I strongly encourage you to read everything in here to realize that there is more to UW Engineering than just the classroom. Far more. I'd say 90% of everything practical I've learned and applied to the workplace has happened through my involvement through EngSoc, The Iron Warrior, Frosh Week, or another group. Even though 90% of learning happens outside the lecture hall, you still need to actually go to the lecture hall. Far too many good people have to repeat a term or switch out of engineering because of poor grades (I speak from personal experience). It might seem impossible now, but by the time you get to your 1B term, you'll understand completely. Remember: ***Work Hard*** first, *Play Hard* second.

One thing that you really should consider getting involved with is us- *The Iron Warrior*. While we might not have the glamour of holding world records like The Midnight Sun, or design self-autonomous robots like the Robotics Team, we do allow you something else: to write. While you're all probably dreading the (stupid) ELPE, and cursing the thought of 30-page Material Science reports, the nice thing about writing for The Iron Warrior is that you can write about what YOU care about. Whether you want to cover the story about some high-profile speaker who came to campus, some wild and zany event like BOT (EngSoc's Beginning of Term party in POETs), or just have an opinion to share, we're more than willing to help to get it published. Of course they have to comply with our policy manual procedures, and not bash PDEng (because it's getting old), but if there is a problem, we can work around it.

If writing isn't you're thing, we always need copy editors to help edit articles, photographers to take pictures, layout designers to help with layout (currently using InDesign CS2 but will be upgrading to CS4 soon), volunteers to help with distribution, and people willing to contact local businesses to advertise with us. Details for our first meeting are below.

Once again, welcome to UWEng and Frosh Week. The next five years will be yours to control!

By the way, the opening line of this article was a tribute to the second best British film ever made: the 1946 hit *A Matter of Life and Death* (aka. *Stairway to Heaven*). You should see it- it actually has a stairway to heaven.

P.S.- talk to everyone you can during frosh week. You'll meet so many cool people that way. You'll regret not meeting more people if you don't.

First Meeting Of Term:

Tuesday September 15, 2009 at 5:00pm in *The Iron Warrior* Office (E2 2394A)
(Go the second floor of E2, and find the T-Intersection and then look for the sign)

Issue #1 Deadline:

Friday September 25 at 6:00pm for publication on September 30, 2009
Send your submissions to iwarrior@engmail.uwaterloo.ca

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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Thank you to everyone who contributed to this year's Frosh Week Edition!

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. The Iron Warrior is directed by an Advisory Board, consisting of members from the Engineering Societyexecutives, editorial staff and student- at- large representatives. Mail should be addressed to The Iron Warrior, Engineering Society, E2 2349A, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x32693. Our fax number is (519) 725-4872. E-mail can be sent to *iwarrior@engmail.uwaterloo.ca*

Frosh Week Events Overview

MARISSA BALE & MATT HUNT
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 Murder Mystery 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, marking 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.

Campus Race: An Amazing Race-style event, Campus Race pits colour groups against each other in a race around campus, while informing you about the buildings and services that are available. There will be various checkpoints, and each checkpoint will have a unique challenge. This is your opportunity to learn all about the services the school has to offer you outside of Engineering, so don't miss it!

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!

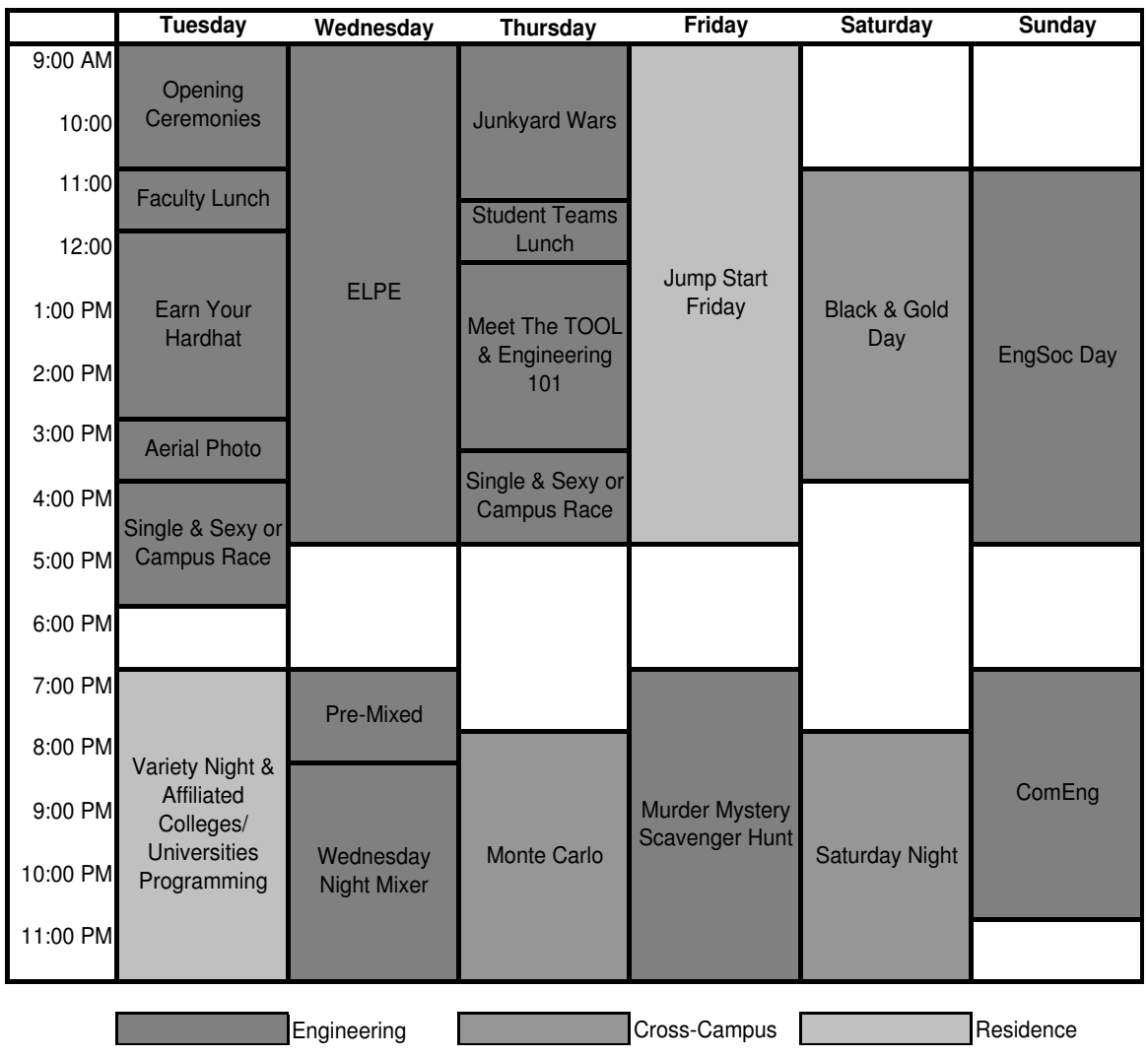
Student Teams' Lunch: Following immediately after Junkyard Wars, the Student Teams' Lunch is your opportunity to meet with upper-year students that are working on one of our many different student teams. This also gives you the opportunity to see what extracurricular activities are available to you and how to take part. 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.

Murder Mystery 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, all of which will earn you clues to solve the Murder Mystery. 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!



A Message from the Dean of Engineering

ADEL SEDRA
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.

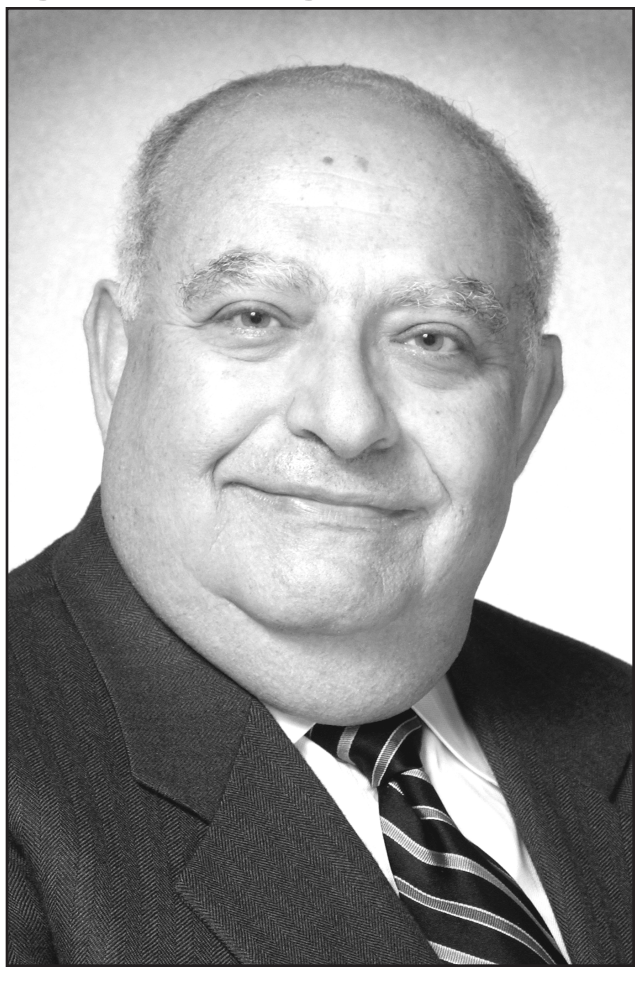
And you may feel overwhelmed at times this year, adjusting to new expectations for academic and workplace performance, learning the ins and outs of co-op, and choosing among all of the great opportunities available to you. Always remember that there is a strong support system available to you. The First-Year 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.

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,
Adel S. Sedra
Dean, Faculty of Engineering



Welcome from the First Year Engineering Office

AJOY OPAL
DIRECTOR, FIRST YEAR ENGINEERING

A warm 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. Being at university will provide many 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 years ahead will be some of the most challenging of your life, as well as some of the best years of your life. Your undergraduate degree will take approximately five years to complete and it is important that you start this process with a little bit of care and planning. The First Year Engineering Office is here to help you plan and manage the transition from high school and home to a new environment in the university.

Starting university is also synonymous with becoming an adult. You have the freedom to do what you like and also the responsibility of taking care of yourself. It is your choice to attend classes, complete assignments or give exams; however, we highly recommend that you do all of these things as they will benefit you greatly. 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 maybe at one end of two extremes, either to study-study-study, or possibly, party-party-party. Neither of these extremes is the ideal choice and, as usual, the truth lies somewhere in between. Let me suggest that a complete human being is made up of three major parts: 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. And just to make it clear, balance during your university life means studying is the major activity you are expected to do, but without ignoring other aspects of life.

You will also find that 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. Thus, you will have to set a priority and spend an appropriate amount of time on each task. To help you with this process it is important that you make a schedule for all these activities. Not only should you make a schedule, you must follow it and make adjustments to it as you go along.

In summary, there are three major things to consider during your undergraduate studies, they are neither study-study-study, nor party-party-party. Instead, they are body-mind-soul, and the balance between them.

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 everyday of your life. The lack of time may also cause stress in your life. In these situations you will need help with your studies or personal life. Keep in mind that asking for help may be the better choice under the circumstances, as opposed to doing everything yourself or doing nothing. Also remember there is no shame in asking for help anytime you feel you need it.

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, and 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 we expect of all students, or you want to take extra courses during your normal study or work terms, or courses at another university. Please make use of all of these resources.

To get help with stress, personal issues, and to learn study and time management skills you can come to Counselling Services. 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. It is important that you inform the First Year Office in case you are dealing with significant personal or medical issues during your study term, especially if you are going to miss classes, exams or not complete assignments during the term.

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, like many other programs, such as medicine, law and accounting, is considered a professional program. The reason is that 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, we expect you 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, depending upon the seriousness of the misdeed, it can lead to expulsion from the university.

Being a professional means being ethical, courteous and considerate in all your dealings and communicating your ideas and thoughts clearly. Being professional in a classroom will mean not to disturb your fellow students or the instructor by talking in class. Being professional to your fellow students will mean to treat everybody equally and without prejudice, regardless of their race, colour, creed, sex or religion. Being a professional means not to lie, cheat or copy on assignments and exams. Being professional means giving credit where it is due, without misrepresenting somebody else's work as yours. Being a professional is all about doing the right thing at the right time. Remember that engineering is a demanding program and you maybe tempted, due to a lack of time, 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.

I wish you all a successful career in engineering and a enjoyable time at University of Waterloo.

Ajoy Opal,
Director, First Year Engineering

Tapping Your Inner Resources

COUNSELLING SERVICES
ENGINEERING

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 TAs, professors, special classes, academic advisors and Engineering Counselling. In Engineering Counselling, we 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 we 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 we 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 we get into short-term strategies to address the problem, we 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. We 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 we will save that for later.

2. Take Inventory of your Strengths

Life is difficult. There, we said it. To get to this point in your life and academic career, you 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. We 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 internal 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.

Frosh Week Colour Groups

PINK
PIRATES

Are you ready kids? Aye, Aye, Captain! Well then welcome aboard the Pink Pirates Engineering Frosh team matey. We're going to need all hands hoay, if we want to win this week. With the help of your enthusiasm, talents and awesomeness we're going to send the other teams straight to Davy Jones's Locker. It will be a long week, so be ready to defend our ship from the other organized civilizations. But we have cannons, rapiers and eye patches that can help as along the way to becoming champions of frosh week. It'll take hard work, determination, and probably some luck along the way so get ready to give it your all. Anyway, welcome to your first week of Engineering at UW. Take advantage of this week as an opportunity to meet new people, make friends, and have a good time. Yarrrrr!

Marc, Micheal, Adriana and Misha
Pink Huges

YELLOW
ANCIENT EGYPT

Hey Frosh!

The Yellow Team is here to prove that Ancient Egypt was truly the greatest of humanity's civilizations. Creating massive wonders of the World that still amaze even today, the ancient Egyptians were some of the most incredible engineers ever to walk the planet. Is there any among us who is unfamiliar with their pyramids, sphinxes, gods and goddesses, mummies, camels or vast amounts of SAND? SO MUCH SAND! MORE SAND THAN YOUR BOX HAS ROOM FOR! We hope to capture the spirit of their engineering prowess and use it to achieve ultimate victory this week!

To the lucky ones who will be joining the ranks of the yellow t-shirts, welcome to the most epic team! Your leaders have been working hard, so get ready to walk (and rule Frosh Week 09) like an Egyptian.

To the rest: BEWARE OF JACKALS! and look out, cause the Yellow team is coming.

Amalia, Jordan, Kristen and Stuart
Yellow Huges

DARK GREEN
INCAS

Deep in the heart of the Warrior Jungle, you can hear the Incas Rumble! The Incan Civilization once ruled the New World and has come out of history to take the throne as Frosh Week champions!

Comprised of a team of dedicated and hard working engineers, we will battle hard against our opponents to reign supreme and earn our spot in frosh week history. Once that's down, it's onto THE WORLD! (But don't tell anyone that yet). Leading the team to victory will be four Huges: Alexa, Amanda, Florence and Trevor, as well as a team of dedicated Bigs who will be working alongside you to help show our dominance.

To make the best of this experience, be sure to GO CRAZY at every turn. Cartwheels, push-ups, and human pyramids will help impress the great gods in the skies above (namely EDCOM) to grant us the power and serenity we need to survive this crazy week. Get ready to chant, cheer, and charge your way through the most adventurous, and memorable week of your undergraduate career

TO A VICTORIOUS TRIBE!

Alexa, Trevor, Amanda and Florence
Dark Green Huges

LIGHT GREEN
GAELIC EMPIRE

Are you ready to be Irish for a week? If you're on the light green team you better be! We're the Gaelic Empire, and we're ready to conquer Frosh Week! Now you might be thinking: what's a Gaelic Empire? Is it awesome? Think Lucky Charms with fewer fake marshmallows and more armor, with a totally bad-ass-take-no-prisoners attitude. Oh, and dating back to about 900-ish years ago. Pretty awesome? Thought so. So grab your light-green gear and four leaf clovers and head over to CPH 3388 help us protect our pot of gold while showing these other teams why they shouldn't mess with this light-green machine.

Sydney, Erin, Lisa and Rob
Light Green Huges

LIGHT PURPLE
INUIT

So you want to be an engineer, eh? Well, chill out, the Inuit will help show you the ropes. Engineers work hard to earn their right to be one, which is snow problem, as everyday as an Inuit is like that. Struggle for survival and dignity; improving the community as a whole. That's the way of the Inuit. Alas, global warming has begun to wreak havoc on our lands! Glaciers are melting, the wildlife is becoming un'bear'able and the walruses are sweating their tusks off. So we've followed the Northern Lights in on our dog sleds and ice floes to Waterloo to combat the many peoples that are destroying our lands through pollution. Help take up our cause as we hunt, ice fish and build igloos and inukshuks around campus and prepare for what is sure to be a chilling battle. Grab your parkas and let's have ourselves a cool one!

Megan, Bryan, Andrew and May
Light Purple Huges

DARK PURPLE
FEUDAL JAPAN

Greetings Fellow Engineers-to-be!

We, your Purple Huges, would like to welcome you not only to Waterloo Engineering, but to the fun-packed, awesome and amazing team that is PURPLE! As we work towards victory this week, we have taken the theme of Feudal Japan with samurai and ninjas to help us in our quest. We will combine the stealth of the ninja to sneak past our competitors! We will use the honour of the samurai to face down those who will stand in our way fairly! We will use the legends of the ninja to strike fear into our adversaries! And finally, we will use the ultimate skill of the samurai to achieve final victory!

So here are some tips to help you in either being a ninja or being a samurai:

• For a ninja, acrobatic skills are useful! Cartwheels, roundoffs, pyramids, and headstands can prove your worth and help in attaining honour and recognition. Practicing these skills could be useful!

• For a samurai, skill in battle is once of your more recognizable traits. Test these by challenging friends to card games (cribbage!), board games, computer games, console games, etc! Win or lose, always show honour towards your competitors in the samurai fashion!

Regardless of your team, welcome to engineering! Have a great time!

Alex, James, Sylvia and Tim
Purple Huges

LIGHT BROWN
CAVEMEN

Ugg Ugg! Welcome to the Light Brown frosh group! This will truly be a rockin' team! Waterloo Engineering is a big family full of aluna(love) and the excitement is about to begin! We know that you will really enjoy Frosh Week so get ready to be pumped up to cheer, chant, scream and grunt for Light Brown! After all, our theme is CAVEMEN!!!! Ice ages, mammoths, dinosaurs, sabre tooth tigers, not to mention we discovered the fundamental haraka, or fire for you civilized folk -- nothing can stop us from taking over the world! … Uh, we mean, winning the week… Light Brown is ready to rock the other civilizations' worlds! These new civilizations give the original man a bad name and they must be defeated! Are we right? Huzzah!

The wonderful Bigs and Huges in our group are also excited to meet you, answer your questions about UW and Engineering, and of course, join you in cheering for our team into victory! All of us leaders are soo thrilled to have all of you here and we cannot wait to show you the ropes, and go Precambrian on the other teams' @**!

So start thinking cheers! Start thinking strategy! And start thinking like the winners we are! After all, we have to do the Cavemen name proud! Get your spirit on! Don't forget some Zug-Zug-y times! Ugg Ugg!

Cailin, Matthew, Melissa and David
Light Brown Huges

DARK BROWN
MEDIEVAL ENGLAND

Hear ye, hear ye! We are the Dark Brown team. Join King Arthur, Zoot, Sir Launcelot, and Sir Bedevere, Kings and Queens of the Medieval Britons, on their quest to find the Holy Grail. The path will be parlous with danger at every turn. Ye might even confront the Legendary Black Beast of AAAAARRRRRRGGGHHH! If ye be lucky, we may even show ye our round table, thatched roofs, and kite shields. So saddle up your steed and get out your lance for this week of orientation promises to be a quest ye will not soon forget.

Cat, James, Drew and Kent
Dark Brown Huges

LIGHT BLUE
VIKINGS

"Did someone say orientation week 2009??? ENTER THE VIKINGS as the light blue team!!

The Vikings were raiders, explorers, and sailors, known for their longships. Longships allowed them to sail the oceans, searching for new settlements to raid and plunder and pillage, and the oars on the boats helped them to row upstream to get to towns where other raiders and pirates couldn't get to. That right there is pretty cool. It made the Vikings rich. Very rich. Longships also had carved figureheads on the bow, for a) lookin cool, and b) terrifying anyone silly enough to get in their way. As we all know, money isn't everything. Well, sometimes it isn't everything. The Vikings were also brave and intrepid explorers, and were the first Europeans to discover North America.

They're great pirates, they're rich, they have cool gadgets that help them get more rich, they're terrifying, they're brave and bold and they beat Mr. Columbus. And they are about to completely take over frosh week!!! Welcome all Vikings to the team and go light blue!"

Kirsten, John, Arthika and Sarah
Light Blue Huges

DARK BLUE
MUSKETEERS

Mes camarades - we have been dealt a great insult. Some call us weak and soft. Others call us "cheese-eating surrender monkeys". I say, let them mange cake, we will take our fine cheeses and wines anyday. After all, we are the French, and by god we are good looking. Our cities are the fashion and culinary centres of the world, and we have ruled continental Europe with the might of our Musketeers for over a century. What French man or woman would give up their love of cheese-eating, surrender, or monkeys? Not I. It is the right of each French citizen to love their country so much that they would surrender it at the first sight of battle. We must fight on, my fellow musketeers, so that our children, and our children's children, may live to surrender again. And again. And then to refuse to fight in Iraq and have French Fries renamed to Freedom Fries. Damn, they are delicious. But regardless, we must fight this week, so that we may not fight later! Vive la France and vive le musketeers, the greatest surrender force known to man!

Sarah, Rob and Deon
Dark Blue Huges

RED
SPARTANS

THIS IS SPARTA! Well... this is at least the ancient city-state reborn as the Red colour group for Orientation Week 2009. Welcome all Frosh! As you may have guessed by now we are the Red Team this year and our theme is the Spartans. Over the next week you will be put though some rigorous training (and a solid amount of good times thrown in too of course) with your fellow classmates before you are sent to face classes.

This week we will show all the other civilizations that Sparta was just too awesome to stay back a few thousand years ago and had to come forward in time for another week. Your Bigs and Huges have put in a lot of effort into this week so that we can all demonstrate the superiority of spray-on muscles. We Spartans will be ready to cheer loudly, get dirty, get wet, have fun and maybe even be involved in some MADNESS!

Adam, Yvonne, Chris and Russell
Red Huges

ORANGE
TRANSFORMERS

Greetings Team Orange aka TRANSFORMERS, this is Optimus Prime. In a rare match-up that has never happened before in the history of the universe, Autobots and Decepticons will cease their battle with each other to focus on something bigger and better: conquering Orientation Week 2009! With our sophisticated technology, the ability to morph into virtually anything and the courage and determination of our Bigs and Huges, there is no other civilization who could possibly stand up to us! Are you ready to be a part of the best civilization? Are you ready to experience a week like no other? Are you ready to fight for the CUBE? We will annihilate the other civilization colours by having the best team spirit and the most fun of all. Be prepared to cheer, dance, work together and have an all-around great time. Autobots and Decepticons, roll out!

Chris, Leslie, Cassandra and Yousif
Orange Huges

ENGINEERING SOCIETY EXECUTIVE REPORTS

Presidential Report

CAT HAY & SARAH SCHARF
PRESIDENTS

Welcome Class of 2014! We are your Engineering Society Presidents: Sarah Scharf (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 be academically or socially. We provide academic services such as resume critiques, an online exam bank, and cheap report binding, as well as a wide variety of events throughout the term ranging from trivia competitions to dodge ball games 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 co-op 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 B-Soc, and half of you (the 8-stream students) will switch to A-Soc in the winter.

We hold biweekly 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 their opinions. Our first meeting will be on Wednesday, September 23 at 5:30pm in CPH 3607, 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!

EngSoc 'A' Executives (Clockwise from centre): Sarah Scharf, Mike McCauley, Eric Cousineau, Tim Bandura, and David Liu hanging out on Spring term

VP Education Report

SASHA AVRELINE & DAVID LIU
VICE-PRESIDENTS EDUCATION

Hello to all the first year students and welcome to the best Faculty of Engineering in Canada. We are your Vice-Presidents of Education for the Engineering Society. This is an exciting time to join the UW community for many reasons, so be sure to take advantage of the short time that you are here.

As your VP Education, our primary role is to make sure that you, the student, are fairly represented at all levels of the University administration and your opinions are heard. We are part of various decision-making bodies on campus such as the Co-op and Professional Development steering committees and various committees that look after changes to courses and school policies . In these meetings, we bring the students' concerns and ideas forward no matter how small.

We also provide engineering students with a wide range of services. For your 1A term, the online exam bank and resume critique sessions among others services will be very helpful. Our online Exam Bank contains full sets of previous midterms and final exams that will aid you in your preparation for exams. The resume critiques allow first year students to get direct feedback and advice from experienced upper year students about how to land that successful first co-op placement. For more information on those services please see Sasha's article on Academic Services in this issue.

In the first couple weeks of the term, the class representatives will be elected for various positions. These positions include EngSoc, WEEF, class spirit and academic divisional representatives. Each position comes with different responsibilities and time commitment, but ultimately these individuals will be the voice of the class. For details, please visit http://www.engsoc.uwaterloo.ca/ under the class representative section. Academic rep's goals are to bring up any concerns with their professors on behalf of the class. We also meet with academic reps on a regular basis in order to help with their job and give important education updates for them to pass to their classes.

Although we may seem hard to approach at first, please let us know if you have any issues about anything. We want to make sure you feel comfortable in this new environment. The best way to get in touch with us is through email (bsoc_vpedu@engmail.uwaterloo.ca for Sasha Averline and/or asoc_vpedu@engmail.uwaterloo.ca for David Liu). Sasha will be running the show for the fall term, while David will be in the winter term. We will get back to you asap. Although we are busy, we always like you to drop by Orifice and just say "Hi". Lastly but not least, we believe that 50% of learning happens inside the classroom and the other half happens outside. You are in a brand new community that's filled with talented individuals and endless opportunities. So have an open mindset and explore your interest and take advantage of the chances that lies in front of you.

VP Internal Report

LAURA SISSON & TIM BANDURA
VICE-PRESIDENTS INTERNAL

Hey! We'd just like to welcome you all to Waterloo!

I'm Laura Sisson and I'm the B-soc VP Internal. I'll be your VP Internal this fall. And I'm Tim Bandura and for those of you still in school for January (8 Stream), I'm A-soc's VP Internal and will be your VPI then! So you may be wondering what we do for Engsoc. Look no further! Our job description is outlined below.

So what exactly is the Engsoc VP Internal (VPI)?

WELL, the Engsoc VP Internal is AWESOME! They plan and organize a lot of the fun events that happen every term. The VPI is the one who organizes a majority of each term's calendar. They check that it's balanced and fun-packed! The VPI also keeps track of meeting minutes, the policy manual, the constitution, and other documents for EngSoc.

Events you say? What kind of events?

We run everything from Semi-formals to rock band competitions, talent shows (TalEng) to trivia challenges (Genius Bowl), parties for your graduating year (Year Spirit Events) to sports pick-up games and tournaments. There is something for everybody and it is a great way to get to know some new friends. Events are also an amazing way to take short breaks from work and relax for a bit. Whatever you do here, we both suggest you find an alternative activity to studying! You'll need some time off from the school life every once in a while.

So how do I find out about these events and get involved??

You can get involved and can find out about up and coming events in a number of ways:

1. By going to Engineering Society meetings, held every other Wednesday from 5:30-7:30 in CPH 3607.

2. By going to the Engineering Society google mailing list: for the fall, the mailing list can be joined by going to this link: http://groups.google.com/group/engsoc_b_general/subscribe

3. By emailing either of us at bsoc_vpint@engmail.uwaterloo.ca (Laura) or asoc_vpint@engmail.uwaterloo.ca (Tim)

4. By checking our event calenders. There is the google one which can be found in the group, or the official engineering society one on our website: http://www.engsoc.uwaterloo.ca/events/calendar

5. BEST METHOD: Visiting us in the Engineering Society Office (a.k.a. The Orifice) which is down the hall from POETS! We'd love to chat with you when we're around!

Have a blast! Welcome to Waterloo Engineering!

WEEF Report

MATTHEW BESTER & JAY SHAH
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 Fund. WEEF, as it is commonly referred to, is a simple concept that was started in 1990 by two Waterloo Engineering students. A large principle fund compiled from years of donations is invested and the interest is used to buy materials and equipment for your labs and student teams. This principle 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.

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. The largest donation given by WEEF was one million dollars that was given towards the construction of the new Student Design Centre in the new Engineering 5 building, which is currently under construction across from DC!

If you find WEEF intriguing and would like to be involved, we suggest that you become you 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

ENGINEERING SOCIETY EXECUTIVE REPORTS

VP External Report

CARA KENNEDY & MIKE MCCAULEY
VICE-PRESIDENTS EXTERNAL

Welcome aspiring engineers to the University of Waterloo! We hope you are getting settled into your new home here on campus and are enjoying Orientation Week!

Firstly, we are Cara Kennedy and Mike McCauley, your Vice-President Externals for the Engineering Society here at Waterloo. We are known to be very outgoing and we love to meet new people. All of our executives are very approachable and if you ever need to know anything about Engineering or your new school in general, we would love to help -so feel free to approach any of us. As you have probably already read, Waterloo has two Engineering Societies because of our amazing co-op system, so Cara will be running the show for the Fall term while EngSoc B (B-Soc) is on campus and Mike will be taking over for the Winter term when EngSoc A (A-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 our Faculty. Throughout the year, we will be attending multiple student conferences and events at the provincial and national levels to meet with students from other schools across the country. The purpose is to learn and share ideas, discuss issues affecting undergraduate engineering students and take action through lobbying initiatives. For many of these conferences, there is an opportunity for members of the Engineering Society (that's you!) to attend along with us. In fact, there is a conference specifically designed JUST FOR YOU! The First Year Integration Conference (FYIC) is being held in Thunder Bay this year near the end of January and we encourage all of you to apply to attend (even if you will be on co-op). All expenses are paid which means it won't cost you a penny AND it is a great opportunity to meet first years from other engineering schools across Ontario. The FYIC is put on by the Engineering Student Societies' Council of Ontario (ESSCO); which you are all members of as students at Waterloo and you will have an opportunity to learn more about this organization at the conference.

Now that you know about one of the organizations the VP Externals work with, ESSCO (a provincial student organization), we also work a lot with the Canadian Federation of Engineering Students (CFES) - a national student organization. The CFES is similar to ESSCO in that it runs similar events but on the national level so you will have the opportunity to meet students from across Canada. This year, we even had the opportunity to send representatives to the Czech Republic to attend the first ever Event on Education!

It is also our job to represent you to professional organizations; specifically the Professional Engineers of Ontario (PEO) and the Ontario Society of Professional Engineers (OSPE). Both of these organizations are great resources for learning more about the Engineering profession and you will see them at many of the events you attend throughout your undergraduate career.

The final part of our job as VP External is outreach. This includes Charities, Woman in Engineering, National Engineering Week, as well as helping to organize community events such as Canada Day celebrations and being part of the K-W Santa Claus Parade. You can get involved in any of these as well as many others such as Bus Push by checking out the EngSoc website (www.engsoc.uwaterloo.ca) or by contacting either of us.

We are super excited to have you here with us at UW and we look forward to meeting all you! If you have any questions or just want to say hi, feel free to come by the Engineering Society office (aka the Orifice), send us an email (asoc_vpext@engmail.uwaterloo.ca or bsoc_vpext@engmail.uwaterloo.ca), or come out to an EngSoc meeting (there's free food!).

EngSoc 'B' Executives (from left): Scott Rankin, Cara Kennedy, Sasha Avreline, Laura Sisson, Matthew Bester and Cat Hay.

Engineering Student Societies' Council of Ontario

SPENCER MCEWAN
ESSCO PRESIDENT

Hi Frosh! Welcome to the University of Waterloo Engineering Society! I hope that Orientation Week is going well, and that EDCOM is not being too hard on you... Believe it or not, across the province at this very moment, first year engineering students are learning engineering traditions unique to their respective schools. Although there are differences from Engineering Student Society to Engineering Student Society, there are many goals, initiatives, and services that are common.

Our focus is to represent the interests of over 20,000 undergraduate engineering students in Ontario

On November 21st 1987, representatives from thirteen Engineering Student Societies from across Ontario gathered at the University of Toronto to discuss the formation of a council to unify the engineering student body in the province. Each representative was eager to develop a mechanism for engineering students to share their 'unrivaled' engineering spirit and to confront issues of common interest. Unification of the engineering student body in Ontario was achieved when the Engineering Student Societies in Ontario formed the Engineering Student Societies' Council of Ontario (ESSCO).

Today, ESSCO is an association composed of fifteen undergraduate Engineering Student Societies from universities throughout the province of Ontario. Our focus is to represent the collective interests of our over 20,000 undergraduate engineering students to our various contacts in government, academia and industry. We also act as a communications link between each member school, as well as external associations such as Professional Engineers Ontario (PEO) and the Ontario Society of Professional Engineers (OSPE). Finally, we perform outreach in the community-at-large and high schools to promote engineering as an exciting and rewarding profession.

The University of Waterloo has had a long involvement with ESSCO over the association's existence. UW was one of the founding universities of the association. More recently, ESSCO has had students from UW serve as Executive Officers for the past five out of seven years! This year, I am currently serving as the President, and Alessia Danelon, a 2nd year Mechanical Engineering student, is serving as the Vice President Services. We both wear pink hardhats that have been worn by Executive Officers of ESSCO for many years and represent the spirit and passion of the association.

There are plenty of ways to be involved with the association. There are a number of directorship positions and volunteer opportunities that are available to help promote various initiatives that ESSCO is pursuing. We also hold a variety of conferences throughout the year. One of particular interest is our First Year Integration Conference (FYIC), which is being hosted at Lakehead University in January 2010. This conference allows students from all across the province to network, learn valuable skills, and share their unrivaled engineering spirit. More information about this conference will be provided by Cara Kennedy, our Vice President External at UW, in late November.

If you have any questions or would like to see what the association is all about, check out our website at http://www.essco.ca.

Stay classy Ontario, and remember that ESSCO is BESSCO!

VP Finance Report

SCOTT RANKIN & ERIC COUSINEAU
VICE-PRESIDENTS FINANCE

Welcome to an exciting five years of education and financial management!

We are the Vice Presidents Finance of the Engineering Society and are responsible for the proper allocation of your refundable $14.25 Engineering Society fee. You will all most likely meet Scott throughout this Fall term and those of you who are called to endure 8-stream will meet Eric in the Winter when you start 1B.

The Engineering Society runs a variety of exciting events and provides engineering students with many beneficial services, of which most are free or very cost effective. Services offered from the Engineering Society Office, or "Orifice" (CPH-1327), include affordable photocopying, faxing and report binding. The Engineering Society also supports both an online exam bank (to help you study come exam week!), as well as an online work report centre (to help you brush up on work terms by comparing yours to those given the highest achievable grade of "Outstanding"!). If you are adamant about refusing the services of the Engineering Society feel free to apply for a refund in the Orifice, otherwise check out the EngSoc website at www.engsoc.uwaterloo.ca and start taking advantage!

As well as having these services, the Society also runs two businesses specifically for the Engineering Faculty – the Engineering C&D and Novelties.

The C&D is our faculty coffee and donut shop located in the CPH Foyer. The C&D not only stocks coffee and donuts… pop, chips, ice cream, soup and an array of other delicious food items are also available. You can satisfy your cravings at the C&D Monday through Thursday 7:30 am to 7:00 pm and Friday 7:30 am to 5:00 pm. We highly recommend checking it out! It's cash only though, no WATcard!

Engineering Novelties Shop, is open every weekday during the term, from 11:30 am to 1:30 pm. We sell both clothing and other novelty items that let you show off your engineering pride. Novelties will also be at ComEng on Sunday evening, to give everyone a chance to buy some merchandise.

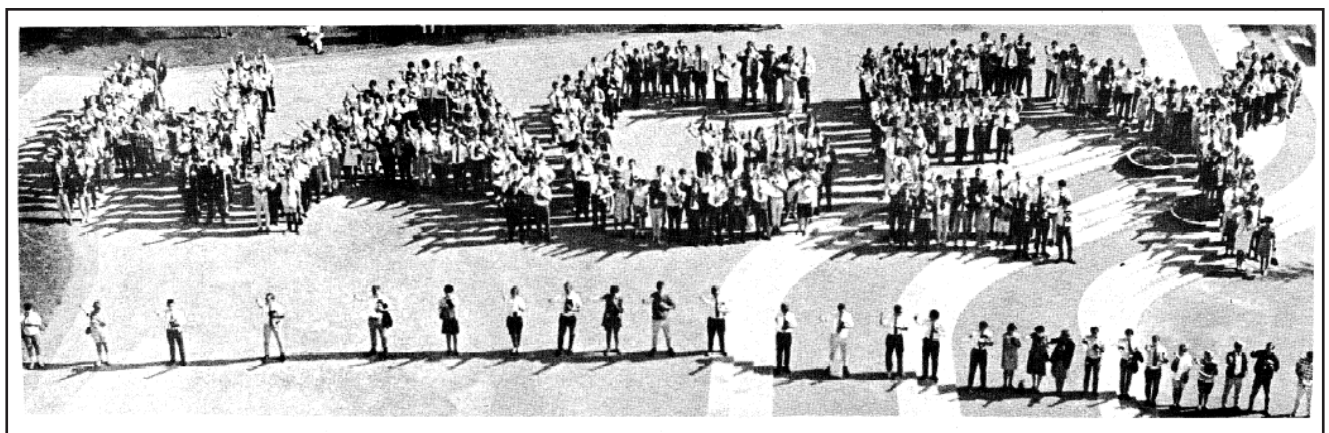
We would like to finish off with some advice for you guys with respect to balancing work and play while at school; get involved in something that interests you outside of school. There are infinite ways that you can get involved: your (new) community, the university, a student team or here in your very own Engineering Society. You can take on directorships, become a class rep, or just attend our events and have a blast. Just remember that a balanced life will keep you happy here in engineering. Now get back out there and enjoy the rest of your frosh week! Remember to impress EDCOM, they will make sure you have a great time this week.

The History of Orientation Week at UW

ROSS RICUPERO
CIVIL ENGINEERING 2009, FOC08

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).

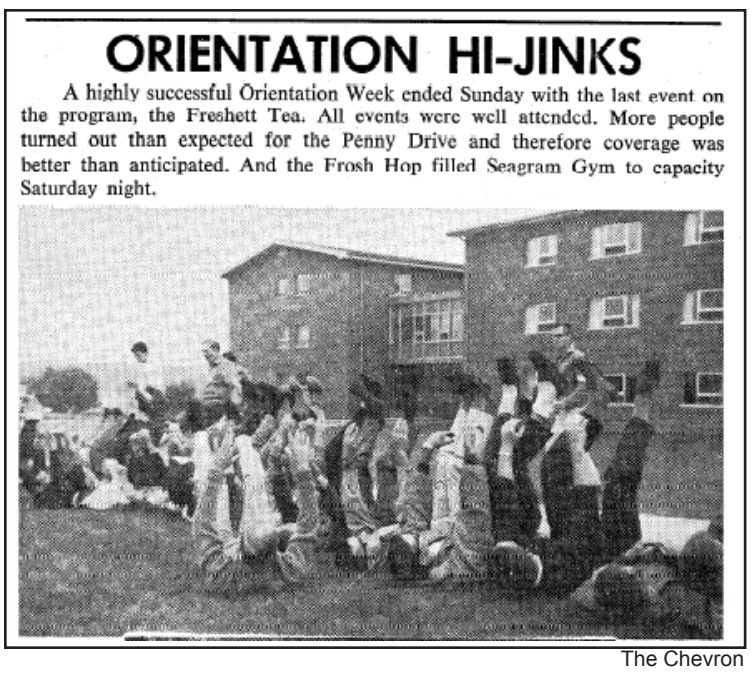
The September 27, 1963 edition of The Coryphaeus gives even more details on "initiation" with an article discussing the school-wide scavenger hunt (apparently they acquired things like wagons, tractors, hay bales, snow fences and pictures of someone named Brigitte Bardot), a game to measure the length 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.



Thumbs upraised, 360 frosh serenaded university president J.G. Hagey from the arts quadrangle last Friday. He came out on the library roof to take the salute. (Chevron photo by Glenn Berry)

The Chevron- Glenn Barry

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.



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.

The Chevron

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 1960s 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 1970s that FEDS took the Orientation Week of the 1960s 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 in the Winter term). 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 1980s and early 1990s. 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 1980s 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 events 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 2009 Orientation Week is over 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 2009 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.

With Respect To Time

Engineering Jazz Band

ANNA LAFOYIANNIS
JAZZ BAND DIRECTOR

The Engineering Jazz Band, or With Respect to Time, started in Winter 2005, as a place to make music in a fun environment. The band is excited to continue this fall and welcome a new set of frosh! We accept all levels of players and hold no 'official' auditions. Frosh are welcome to join and be part of the band.

We rehearse every Sunday night from 7 - 9:30 p.m. in the SLC Multipurpose Room. This results in equipment to be moved every single week (drums, amps, keyboard, music stands). Throughout the week, sectionals are held for wind instruments, and some weeks of the term there are also nightly rehearsals on Wednesday nights. Overall, the band puts in hours and hours of work and each musician can expect at least 5 hours of commitment of week, more in the last month where gigs are almost weekly! Our gigs have included Engineering Gradball, Student Life 101, Warrior Weekends, Engplay, Arts formal, and much more! Every term we hold a Charity Gig at the end of term for all to come and see us play. This past summer, we held the show at the bandshell in Waterloo Park and raised money for the Foodbank.

For more information, go to our website at www.engjazzband.com or email the directors at info@engjazzband.com. If you would like to join, please let us know your name, program/year, instrument and experience.

EngSoc Meetings

DEVIN CASS
SPEAKER

Dear Frosh,

Cool People get involved with student politics at EngSoc meetings!

There are certainly a lot of cool people in University, as you are about to discover. Some of these alleged "cool people" dedicate a portion of their time to making the lives of their fellow engineering students better and more fun. They do this by participating in Engineering Society (EngSoc) activities and undertaking directorships (that means organizing events and services). The focus group of cool people today are those who dedicate their time to influence how EngSoc can best serve the engineering students, by attending the democratic decision making events known as EngSoc meetings.

I want to help decide what my EngSoc does, how they spend their money and what their policies are!

Well, that's pretty easy. There's also fun to be had! EngSoc meetings are held on Wednesday nights at 1730 and there are six each term. They are engaging and you often see the EngSoc executive dressed in ridiculous outfits. There's also FREE FOOD! Can't really argue with that.

Do I need VIP? Coups? Tix? (i.e. Can anyone just show up?)

All are welcome! EngSoc encourages participation from frosh right at the first meeting HARDCORE! Show up to:

CPH 3607 on the 23rd of September 2009, at 1730 hours.

Meet some people, provide some input, have some fun, eat some food on EngSoc! I promise no one will steal your coats!

Academic Services

SASHA AVRELINE
VP EDUCATION B-SOC

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 interacting with you in the upcoming Fall 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. The exam bank is available online and can be used from the convenience of your home / residence. It is as simple going to http://engsoc.uwaterloo.ca/services/exambank, logging in using a the username and password provided to you by us, the Engineering Society and then searching the course you are looking for from the drop down list. The online exam bank contains scanned PDF files of the most recent exams. 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 terms that have received very high grades, similar 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/services/work-report-centre and log in using the same username and password as above. 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.

Resume Critiques: Resume 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 resume and provide you with feedback on how you can improve it. You will hear more details about resume critiques in your first year concept classes (those that end in "100"). 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!

Waterloo Engineering Competition

KEVIN LIU & KEVIN LING
WEC DIRECTORS

Hello first years, and welcome to the University of Waterloo! This term we will be hosting the 2nd ever Waterloo Engineering Competition (WEC). As of its premiere last term, the WEC serves as the University of Waterloo's qualifiers for the annual Ontario Engineering Competition (OEC). It's free to participate and there are lots of monetary prizes and a chance to show off your engineering prowess. Competitors get the opportunity to use the best equipment and experience real hands-on design. The winning teams get recognition on their official transcripts and will represent the university at OEC, which UW will be hosting in the new year!

There are several ways to play. As first year students, the competitions open to you will be the Junior Team Design, Consulting Engineering, Debates, Technical Speaking, and Innovative Design. Junior Team Design sees first and second year students design and build a solution to an engineering problem in teams of four. In Consulting Engineering, competitors design and present a solution to a real-life engineering problem in teams of four. The Debating and Technical Speaking events are hosted by the Sandford Fleming Foundation (SFF) and focus on engineering topics. And lastly, the Innovative Design competition has teams of four (or less) present products or processes that they have invented.

For more information on the competitions, visit the WEC website at wec.uwaterloo.ca.

The WEC is expecting a lot of participants for the Fall 2009 term and there are limited numbers of entries, so get your team together early and register on the WEC website at wec.uwaterloo.ca!

Women In Engineering Welcome Lunch

AMANDA LEDUC
WIE DIRECTOR

The Women In Engineering (WIE) committee is hosting a free welcome lunch on Wednesday September 16 at noon in the Davis Centre Fishbowl! This will be a great opportunity for first year females in engineering to come out and meet some upper year girls and female professors in a casual and supportive atmosphere ... and did I mention there will be free food?

But what is the WIE committee? Well, the University of Waterloo has a Women In Engineering Committee which was established in 1991 at the request of the Dean. This committee consists of faculty members, representatives from the Dean's Office, graduate engineering students and undergraduate engineering students. The purpose of this committee is twofold and consists of support activities and outreach activities. Before entering engineering, you may have benefitted from our outreach activities such as Go Eng Girl! These activities are designed to encourage girls to seriously consider engineering as a career path. Now that you have made the (right) decision to enter engineering, you will be able to participate in our support activities.

Some of the activities we organize for female undergrads are talks that relay information, such as how to be prepared to work in heavy industry, a very strongly male dominated industry. We also organize activities designed to give girls the opportunity to interact with other girls in engineering in non-academic activities. We have held spa nights, yoga classes and movie nights just to name a few.

To keep informed on the all of the activities we host, I strongly encourage you to subscribe to the WIE mailing list. Through it, you'll receive information on events, scholarships and any other relevant information specific to females in engineering. You'll be able to sign up for the mailing list within the first month of class.

The question of men in engineering typically comes up, so I'll address it here to be clear. Men are allowed to come to any of the Women In Engineering events; however, most of the WIE events are geared toward women, so don't be surprised if you don't find them particularly relevant.

I hope you are able to make it out to a few (or all) WIE events during the coming terms. As a female in Engineering at Waterloo, you are definitely a minority, but you are certainly never alone!

Women In Engeering Meet and Greet Lunch
Wed. Sept. 16, 2009
11:30am-1:30pm
DC Fishbowl (DC 1301)

RSVP to rwittke@uwaterloo.ca

POETS
The Engineering Lounge

DEVIN CASS
POETS MANAGER

There are certainly a lot of cool people in University, as you are about to discover. Some of these alleged "cool people" spend their time in a small establishment called POETS. Some know the word "poets" as a great song by The Tragically Hip from their album Phantom Power. We (speaking for the collective engineering students) know it as an acronym- what does it stand for? You'll just have to find out!

What's this all about then?

POETS is quite simply a lounge near the entrance to Carl Pollock Hall (CPH). It's a place to kill time between classes, over lunch, in the evening, and even on weekends. There's usually something on the giant projection screen television. There are dartboards, a foosball table and even a pool table. There's a bar that serves BEER and other alcoholic beverages on Thursday and Friday between 12:00 and 4:00pm (19+ if you want to buy some, but all are welcome to be in POETS at the time). It's adjacent to the Coffee and Donut shop, so you can get some delicious lunch/breakfast/dinner food (omnomnomnom) and eat it while lounging with your associate student contemporaries. You can go there for special events such as bands, parties, movies or whatever you can come up with and organize there (POETS is bookable). Everyone is welcome!

Will there be games?

THERE WILL BE GAMES! I happen to be a manager of this lovely establishment. We're planning some pretty awesome competitive fun.

• Trivial Pursuit team edition!

• Guess the theme... of the day's TV dosage!

• Play-doh!

I'm not sold yet.

There are three "of term" parties that are held in POETS on a Friday night. Beginning (of term), Middle (of term), and End (of term). We abbreviate these BOT, MOT, and EOT. At each of these, we get to be served by bar services. Drinking is optional of course, and you can be any age to show up. At each of these we get a special visitor... THE TOOL. You can look but you can't touch, Frosh.

OK I'M SOLD!

Excellent. POETS is where it's at. Come on in, eat, drink, be merry.

Athletics!

PAUL NOGAS
ATHLETICS DIRECTOR

The Athletic Directors are responsible for planning athletic events for engineering students and their friends to participate in. We want to make sure that you're working your body as well as your mind. Also sports are a great way to meet people from different programs and faculties. We also like to expose people to new sports they haven't played before. Some of long standing traditions of events we have include Snowbowl (a football game in winter), wheelchair basketball and B**5 or A**5 (which is a Bowling day). Recently we have also started weekly pickup games where we have played touch football, Ultimate Frisbee, soccer, beach volleyball, hockey, curling, cricket, etc… So be sure to look out for events throughout the term and feel free to invite roommates, classmates and any other friends!

EngPlay!

ERIN MATHESON &
MATT KERWIN
ENGPLAY DIRECTORS

Hey 2014 frosh! Do you like to act, sing, dance, or just simply perform? Well then do I have something for you! Haven't really done much of that before, but really want to try it out? Even better! EngPlay is a drama production put on every term by, you guessed it, engineers! The play we're doing this term is still being kept top secret, but we can assure you it's going to be amazing. We'll be holding auditions during either the second or third week of classes; keep your eyes peeled for posters, all the information you need will be on them. There will be three or four performances towards the end of November, which seems far away, but will come up sooner than you think! Don't be afraid to come on out and give your acting skills a try!

See you at auditions!

Genius Bowlarama!

CAILIN HILLIER
GENIUS BOWL DIRECTOR

Genius Bowl is an action packed event held every term! This year it will be taking place on Wednesday, November 11th. So everyone should come on out and show off their trivia skills!

Genius Bowl is a team event where the host asks the teams questions regarding any topic you could imagine, from video games, to geography, sports queries to literature. Not to mention your typical course material, nothing is off limits. So get a group of friends together from residence or make a class team, convince your professors to come on out too and challenge the rest of engineering to a duel in knowledge.

Questions will take on many different forms this year, with multiple choice, spelling bee, jeopardy and lightning round styles. Super exciting prizes will be awarded for brilliance, team spirit (costumes anyone?), and down right silly answers. Hope to see you there!

Be sure to catch this term's Genius Bowl on November 11, 2009.

WATCH FOR DETAILS!

Year Spirit!

CAILIN HILLIER
2012 YEAR SPIRIT DIRECTOR

Year Spirit is a big deal in Engineering since we are always looking at new ways to show enthusiasm and exhibit our competitive sides. Every year has their own Year Spirit directors to plan events for those students in the same graduating year as you. Events range from camping excursions, water fights, bowling, laser quest, or paint balling ventures, movie nights, potlucks, IRS countdown parties, picnics, end of year celebrations, networking opportunities and more!

This year there is actually going to be a new component to Year Spirit. A Year P**5 winner will be determined, with the Paul and Paula Plummer Participation Points for every class in a designated year being added together to see which year reins supreme. So without further ado, welcome 2014s! Oh, and it's on!

UW Robotics Team

MEGAN POLLOCK
2T SYSTEMS DESIGN

Did you cringe during *Transformers* every time a Decepticon was blown up? Do you secretly (or not-so-secretly) wish that you were Iron Man? Did you shed a single tear when WALL-E and EVE held hands? If so, the University of Waterloo Robotics Team is for you! The team mainly focuses on autonomous path-finding robots with projects including an autonomous sailboat, a Mars rover (in conjunction with Space Soc), an autonomous lawnmower and an autonomous ATV. We recently competed in the Intelligent Ground Vehicle Competition in Michigan and are currently working to improve our design for next year's competition.

First year members are also invited to participate in our Mini-Sumo Competition. Teams of 4 or 5 will work together to build a mini autonomous robot that will battle against other robots and try to push them out of a defined ring. This competition is partnered with IEEE and will take place through September and the first half of October.

So how do you get started? Our lab is located in E3-2103B (don't worry, even the upper years don't know where that is, but there's a map on our website!). Feel free to drop by and chat with current team members. Also, keep your eyes open for posters advertising our recruitment meeting on September 22. Check out our website for more information (robotics.uwaterloo.ca) and we look forward to meeting you all!

Ryan Jolivet

Iorek, a Robotics's team robot.

STUDENT TEAMS AND CLUBS

UW Sustainability Project

EMMA BOCKING & DANIELLE WOON
S09 UWSP CO-ORDINATORS

The University of Waterloo Sustainability Project (UWSP) is your environmental service on campus. We have numerous volunteer opportunities available for students. Most volunteers choose to join one of our working groups: you will meet dedicated and open-minded students interested in a diverse range of environmental issues, and acting on the ground to make visible change. Our working groups include Waste Management, Natural Landscaping Team, the Otesha Project, Sustainable Technology Education Program, Sustainable Foods, Better Practices and Active Community Transportation. Of course, we are always open to suggestions for new working groups! If you enjoy participating in discussion groups, planting gardens, building bike generators, holding local-food taste-testers, riding a bike, acting or spreading the word about recycling, chances are there is a place for you in one of our working groups. Another way to get involved is through our Executive Board, which oversees the administrative side of UWSP, and makes sure that the working groups are able to run as smooth as possible. Each term the board organizes a large UWSP-wide event, and we are always looking for volunteers. Stay tuned for this upcoming volunteer opportunity! To get involved, find us at Clubs and Services Day, then add your name to our mailing list and introduce yourself! By adding your name to our mailing list, you will be informed of environmental events on campus and in the community, as well as all of our volunteer opportunities. Look out for our General Volunteer Meetings within the first two weeks of class, where we will cover the basics of each working group. For more information, you can also visit our website at uwsp.feds.ca or e-mail us at uwsp@feds.ca. We look forward to meeting you!

Clean Snowmobile Challenge

ALEX GIROUX
4T MECHANICAL

Ever wonder what it's like to drive a snowmobile? Want to work with some pretty awesome stuff? Want to be one of two Canadian teams at an international competition? If you answered yes to any of these three questions, you should check out the University of Waterloo Clean Snowmobile Challenge Team! We are currently made up primarily of fourth year mechanical engineering students, but everyone is more than welcome to come out and join the team!

Our current competition sled, which we will be taking to the SAE Clean Snowmobile Challenge in Michigan in March 2010, has a Bombardier chassis with a Yamaha four-stroke engine. The CSC is all about making an efficient, clean sled, while still making sure that the end result is a machine that someone will want to buy. We've also purchased a new chassis that we'll be working on for the competition in 2011, so there's lots to do! In addition, in September 2009 a team will be formed to compete in the Zero Emissions category of the competition. That team will be working on building an electric snowmobile for the competition in March 2011.

As you can see, there's lots to be done, lots of chances for hands on work and lots of opportunities to learn! Even if you've never even ridden on a snowmobile before, let alone driven one, don't worry, we'll teach you. Most of us never rode a sled before joining the team either. Sound interesting? Think you'd like to learn more? Check out our website at http://www.eng.uwaterloo.ca/~sled/ or come out to one of our weekly meetings, and of course, if the door to the team room is open you're more than welcome to come in and ask questions.

UW IEEE Student Branch

DEREK BENNEWIES
UW IEEE STUDENT BRANCH

Hey there frosh! Hope orientation is going well. By any chance, did you stick around for the Student Teams Lunch? Talk to any members of the clubs that were involved? Even if you didn't, now is a great – no, the best – time to get involved on campus. No matter what your area of expertise is, I'm sure there's a role in some student team out there that's a perfect fit. Don't believe me? Let's take a look at what's out there.

Maybe, for example, you're one of those ambitious, career-driven people, looking for cool job opportunities and industry contacts. Then maybe it's a good idea to find out more about the Institute for Electrical and Electronics Engineers (IEEE). Don't let the name fool you – this 125-year-old organization has long since surpassed the limits of electrical engineering – you can find pretty much any type of engineer involved with this society. The student branch is passionate about making industry connections, raising awareness in engineering, and facilitating student-driven technological innovation. They organize competitions, field trips and industry talks. For example, you might want to check out legendary game design company Blizzard Entertainment (World of Warcraft, anyone?) at the Humanities Theatre on **September 16th, 3:30pm**– that's the first Wednesday of classes. Stop by ieee.uwaterloo.ca for further details.

Or perhaps you used to be the kid with all the Lego. You love to build stuff. Whether you were the winner of the FIRST robotics competition in high school, or you've only the most basic knowledge of robotics, why not check out UW Robotics? These guys have built several autonomous robots and taken them to competitions internationally. Check out uwrobotics.uwaterloo.ca and you'll see what I mean – they have videos of some of their impressive creations.

Robotics not for you? Still like building things? How about rockets? Because you can't deny that rockets are awesome. Check out the Waterloo Space Society (spacesoc.uwaterloo.ca). They organize rocket launches, but it doesn't stop there – there's lots of opportunity to pursue other interests. They've organized field trips, guest speakers, movie nights – you name it. If it has to be space related, this is the place for you.

Let's go back to Earth for second now. Really back to Earth. If you're (very sensibly) of the opinion that our planet is screwed unless we do something about it right now, you might be interested in taking a look at either R3Design or the Sustainable Technology Education Project (STEP). R3Design (pronounced "Redesign") is all about finding ingenious ways of recycling and reusing materials – they've held some very interesting competitions in the past, and they're always trying to raise awareness. STEP is little more on the technical side – they've done things like install solar panels on the roof of FED Hall. Stop by r3design.org and step.uwaterloo.ca for more info.

My guess, though, is that a lot of you aren't really sure what student club is your best bet. So why not stop by the IEEE booth in the SLC from **September 14th – 23rd,** and register for one of our four engineering design competitions – we have one with each of the clubs I just talked about. Get a team of 4-6 people, and get ready to build a robot, a rocket, a wind turbine, or even reinvent the bicycle. You'll get to know a little bit more about a club, and decide if it's right for you. What with this difficult economy, having the advantage of extra-curricular involvement is going to make you a lot more attractive to employers. The prize money from winning the competition is just an added bonus.

Hopefully you've got a better understanding of what's out there in student clubs. Always remember that even if you'd rather organize an event than build something, there are plenty of opportunities out there. Get involved!

Formula SAE

ANDRE LO & KARAN VIRMANI
FSAE TEAM MEMBERS

The University of Waterloo Formula SAE team is supervised by the Department of Mechanical and Mechatronics Engineering. Every year, members of the team design and manufacture a car from scratch for the Formula SAE competition.

Formula SAE is an internationally-recognized Collegiate Design Series event hosted by the Society of Automotive Engineers (SAE). With over 200 universities from around the globe competing, it is also one of the largest and most competitive student vehicle design competitions in the world. The Formula SAE Competition challenges students to design, fabricate, market, and race a brand new, small formula style, open-wheeled race car every year.

Students who help out with the team receive invaluable hands-on experience, engineering knowledge and analytical skills that help them apply the concepts learned in classroom to real-world engineering problems. The team looks for motivated students with a high interest in the field of automotive engineering. In order to be a good designer and engineer, it is very important to have hands-on experience working with tools and fabricating parts; the team provides plenty of opportunities to do so as member.

In addition, team members raise money required to construct the car by constantly seeking sponsors. The team also looks for students interested in the field of web administration, graphic design, IT, marketing and sponsorship to help out with business related aspects of the team.

Students who are interested in membership are encouraged to contact the team at uwfsae@gmail.com, as well as to come out to E3-2107 for a chance to talk to current team members in person. For more details please visit www.fsae.uwaterloo.ca .
you can earn a certificate after completing our curriculum. Check out www.watc.ca for details.

North House

ANDREA HUNNIFORD
MEDIA RELATIONS- NORTH HOUSE

This October, the University of Waterloo will be represented in Washington DC at the Department of Energy's Solar Decathlon by a team of students and faculty who are building a solar powered house to compete with 19 university teams from across the world.

The Waterloo delegation has included over 30 students and faculty from Architecture, Civil, Environmental, Mechanical, Mechatronics, Electrical, Computer, and Systems Design. They are working in partnership with Ryerson University and Simon Fraser University to form Team North. They are a multidisciplinary team working across the country to develop North House. North house is a compelling, marketable solar powered home for people with active lifestyles. The project will encourage growth of Canada's next generation of engineering, and design leaders.

The 2009 Solar Decathlon is a high profile event, held on the National Mall in Washington from October 8th to 18th. 20 Universities have been selected from around the world out of well over 80 applicants. Being in the competition involves building a full scale house (max. 800 sq. ft.) on the Mall and having the house compete in ten 'events' that measure the quality and performance of a solar powered home. In 2007 there were over 200,000 visitors to the event..

The project, which began in October 2007, has been in progress for the past two years. The project was developed using the iterative integrated design process. All team members from all disciplines were involved from the very beginning of the project and every member's contribution has optimized and refined the components of the house. This includes everything from the development of new energy management technologies to designing interactive interfaces that make sustainable living easier.

In addition to academic partnerships, students have had the opportunity to work with industry partners and building experts participating in hands-on research and training. This leads to a cross-disciplinary work and competitive atmosphere that can't be found in conventional education or industry setting. The student participants have benefited from the process. Maun Demchenko, Masters of Architecture candidate, summarized the process saying "The interdisciplinary work has been great. We're getting an amazing view to what the future will be like for all of us."

Waterloo Space Society

WILLIAM DUROCHER
WSS PRESIDENT

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 activities and the excitement of the commercial space business. The Waterloo Space Society is a chapter of several other independent space organizations including SEDS, CASI and the Mars Society. We also have a few space subgroups.

Subgroup: The Waterloo Astronaut Training Corps

WATC is a group of enthusiastic individuals who have the drive, motivation and desire to become astronauts. We realize that in our lifetime space travel will open up significantly and we want to be a part of that. We offer weekly training and go skydiving, SCUBA, flying, survival training and more. This group offers Astronaut basic and advanced training and

Subgroup: UW Mars Rover Team

Interested in space and robotics-well this subgroup is for you! This well funded robotics team is making a Mars Rover for the University Mars Rover Challenge run by the Mars Society in the Utah desert. The goal is for the robots to complete many simulated Mars tasks like bringing a downed astronaut an air supply, repairing a panel, and looking for Martian life.

For more information about what we offer or to join our executive team e-mail us at waterloospacesociety@gmail.com

Civil Engineering

STUART PEARSON
2T 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 upper years. Your first term will consist of five courses: Calc, 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. 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. In the winter, you will continue learning the fundamentals of engineering, with more Calculus, as well as Electrical Circuits, Programming, Earth Engineering and Statics.

Civil has a lot more to offer than just building structures. As you progress into your upper years here at Waterloo, there are numerous specializations for Civils to take advantage of. If you like playing with water, there are a number of fluids and hydraulics courses waiting for you. Does Light Rail Transit get your heart a-fluttering? Then you have traffic and transportation planning to look forward to. Whatever you're into, there's something for you in Civil.

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. The recession has made job-hunting a bit challenging, but fortunately the government's heavy investment in infrastructure has made things a little easier for us than many other engineering programs.

Above all, be 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 in something! Staying well-balanced is important to surviving first year and keeping your sanity.

Best of luck and have an awesome frosh week!

Computer Engineering

SCOTT HOOKER
4N COMPUTER

Welcome to Computer Engineering at UW! As a part of the Electrical and Computer Engineering department, you'll take many of the same courses as your friends in Electrical, but there will also be some significant differences. Your first year will include many of the fundamental engineering courses in subjects like physics, calculus, and linear algebra. You will also take courses in basic programming and analog and digital circuits. Once first year is over, things start to get a little more exciting. You will take required courses in communications, control systems, electronic circuits and devices, computer architecture and signals and systems. Unlike your Electrical counterparts, you'll also take courses that are more software and computer oriented, including operating systems, compilers, digital circuits and networking, among others.

Some of the highlights of your career in Comp Eng will include an operating system software project in 2B (formerly done in 3A) and a massive design project in your fourth year. The operating system project is a very primitive, command-line based OS written in the C programming language for a small embedded computer board. This is no Linux, and only the most basic functionalities are implemented, but you'll learn quickly that even the most basic operating system is an extremely complicated piece of software. Very few groups avoid all-nighters on this one. The fourth-year design project is a major project, done in groups, that is planned during 3B, implemented during 4A and presented in 4B. The project is on a design of the students' choice. If you're interested in seeing what some of this year's graduating students have come up with, come to the ECE Design Symposium next February in the Davis Centre.

Computer Engineering co-ops can have some of the most interesting and exciting jobs in all of Engineering. Many first year students will start out in jobs doing simple programming, IT or hardware testing. As you get into upper years, you'll find yourself in more intense and important job positions. Jobs can be anywhere; from Waterloo to Toronto to New York to Silicon Valley and San Diego. Computer Engineering and co-op can definitely be a great opportunity for experiences all over the world.

I'd just like to welcome you yet again to Computer Engineering. Make the best of the coming years, and take advantage of the opportunities that you'll gain by being in one of the best engineering programs that UW has to offer!

Geological Engineering

CAILIN HILLIER
2B GEOLOGICAL

Welcome to Geological Engineering! This is truly a unique program inside and outside of the classroom. The Geo program typically has small class sizes which translates to big time class spirit. Everyone knows everyone and it forms a Geo family, which is great for homework help, group projects, and exam study sessions. Geo branches into two faculties, being part of both the Department of Civil and Environmental Engineering and the Department of Earth and Environmental Sciences. There are several add-ons that can become part of your Geo degree, including options in Management Sciences, International Studies, and Water Resources. Areas of interest to specialize in consist of Geomechanics and Hydrogeology.

In your first term in Geo, you can expect a basic introduction to the program. The Engineering Concepts course you will be taking will show you the ropes on surveying, using AutoCAD and completing a resume and technical report to help get you prepared for co-op. When you return in the summer for 1B, you will be taking an introductory Earth Engineering course. Geo students have typically been big fans of this course. You can expect to study tectonic forces in relation to earthquakes, volcanoes, and more and look at how this becomes important for engineering design.

I think that co-op is where Geological Engineering really shines. Geo is known for having amazing co-op opportunities around Canada and the rest of the world! Students have worked in mines in northern Canada to hydroelectric facilities in British Columbia, and even as far as Africa working on aerial photography projects. Anywhere that you could want to work is a possibility for Geos. Work in hydrogeology, construction, mining and tunnelling, environmental consulting, water management, and much more is available to all Geo students. This field of study is a great way to combine a love of geology and earth sciences with math, chemistry and physics. And remember, Geo rocks!

Management Engineering

AMANDA LEDUC
2T MANAGEMENT

Welcome to Management Engineering! The single greatest engineering discipline ever created and also the first and only ManEng program in Canada!

So you made a decision to enter ManEng because it looked like an interesting fusion combining the analytical thinking skills from engineering with the financial skills from business. Those two things are true, but it is much more than that. This degree will provide you with the necessary technical knowledge required to understand many types of problems from mechanical to economic and it will also teach you how to think and analyze these problems like an engineer.

By now, you've also probably heard somebody say, "Management Engineering, that's not a real engineering discipline". Unfortunately, this sentiment is encountered, which leads one to wonder, what constitutes a real engineering program? Should it have critical thinking, problem solving, real world applications, a hefty amount of mathematics, a broad understanding of all engineering disciplines and the ability to improve society? These all seem like good things to have in a real engineering program and all of these things are more than covered in the ManEng curriculum ... so I guess that settles the issue!

I greatly enjoy being in the pioneer class of Management Engineering and look forward to my next three years here. Our class has one of engineering's smallest class sizes and also has one of co-op's highest employment rates. I sincerely hope you enjoy your time here in Waterloo Engineering and that you get as much as you can out of the ManEng program.

Environmental Engineering

ANNA LAFOYIANNIS
4A ENVIRONMENTAL

Welcome to Enviro! First off, a warning of what's to come: Your first lecture is going to be with Bob. He will show you charts of the common grades in first year. He likes to scare you and half of you won't be able to stand him. The other half will love him. My advice: Bob loves anyone that takes the initiative to ask for help when they need it. He is truly passionate about teaching and is willing to take time to make sure you succeed, you just have to ask. For those of you who don't love him now, know that he is in charge of examinations and promotions for upper year students. So stay on his good side!

Physics 115 is usually the hardest course in 1A. Don`t get discouraged if you are having trouble. The physics profs are actually really nice and helpful. Near midterms and end of term, Prof. Rohan Jayasundera will do help sessions. Ask your friends in Mech where it is and sneak in. He will give you hints for the final!

If you want to stay sane, get involved on campus – Engineers Without Borders, R3Design and the UW Sustainability Project do a lot of `green` initiatives. They are fun, give a good break from studying and look great on a resume!

Speaking of resumes, know that Enviros usually have a ton of co-op opportunities and often more jobs than students! Typical jobs include working for municipalities and consulting firms. You don`t have to pigeonhole yourself though - there are a ton of other opportunities through co-op to expand your horizons.

The best part of Enviro is your classmates. Make friends with the people around you because you`re going to spend 5 years with them. Odds are, they will become your best friends.

Software Engineering

JOE COLLINS
4A 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 new-found 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.

Mechatronics Engineering

SYLVIA WU
2B MECHATRONICS

This article is not about Mechatronics Engineering. You've already been told enough by the university, hopefully. If you don't know what it is by now it's a little too late. For information on courses, please visit the UW Mechatronics Engineering website. For information on professors, please visit ratemyprof.com. This article is about what it feels like to be in Mechatronics Engineering, written from the point of view of a very average Tron.

To all of you who are entering Mechatronics Engineering this fall, a big congratulations is due: you have made it into one of the most competitive engineering programs at Waterloo, give yourselves a big pat on the back!

My positive talking ends now. I know that was a short one, but someone needs to expose you high school-nerd-olympic-champions to reality! You think you're pretty smart; well, so is everyone around you. You won the regional science fair, but that kid who snores loudly in class built his own car before he got his driving license. Being in a program full of over-achievers has its downsides: getting A's can no longer ensure you a spot in the top 30% of your class (seriously). This can lead to some serious self-esteem issues after your first midterms and exams. However, being surrounded by interesting and brilliant people can also motivate you to push yourself harder than ever and help you draw inspiration from those around you.

What makes Tron students stand out from the rest is how well-rounded they are. I'm talking about the class as a whole here. Due to its multidisciplinary nature, Mechatronics attracts a diverse crowd. Some Trons are very mechanically apt, while others can program in their sleep. However, the program itself challenges each individual's ability to become a polymath. In the beginning, the lad who can do all ten of the GENE 121 assignments in a week might not be able to draw a straight line to save his life (in MTE 100 graphics). By the end of 1A, he better knows how to draw perfect lego pieces! No one is good at everything, therefore no one can succeed in Mechatronics without putting in hard work. Having someone beside you who knows how to sketch like a Fine Arts student helps, a lot. My single most important piece of advice to all the new Trons is to be humble and be willing to ask for help. Your professors and TAs can provide that in enormous amounts, but sometimes tips from a fellow student will really save your bottom.

I feel obliged to offer the new female Trons some exclusive words because you are a special bunch. Dealing with an overwhelming amount of testosterone can be very frustrating at times, but nothing a smart woman can't deal with. Always carry hygienic products: you don't have a lot of people to borrow from and you never know when a fellow Trongirl might be in need. What's coming ahead is not easy, but easy is often not worthy.

Mechanical Engineering

KARAN VIRMANI
2A MECHANICAL

The well-established Mechanical Engineering program at the University of Waterloo provides a broad foundation in all aspects of mechanical design: mechanics, power, control systems, and manufacturing.

1A is focused on learning free-hand and Computer Aided Design. There are subjects like physics, calc, linear algebra and chem as well that ensure a well rounded education.

There are a number of mechanical engineering student teams that can help students gain a lot of hands-on experience on mechanical design like the Midnight Sun, Formula SAE, Mini Baja. Participating in these teams' help students learn a lot about good mechanical designs and in turn can help them get good co-op jobs.

What kind of jobs do Mechanical Engineering students get in 1st year? Most 1st years get manufacturing jobs like working on the assembly line, quality testing, making basic 2D drawings in AutoCAD etc. Some students may get programming jobs also but as students get more experience they get more and more jobs that involve designing and simulation.

Work experience will compliment academic learning. Students return from work terms wanting to know more about how processes and machines function. Mechanical Engineering at UW is more than just sitting in a classroom and reading books. Students are encouraged to put theory learned in classroom in to actual practice.

Chemical Engineering

SASHA AVRELINE
4A CHEMICAL

Welcome to one of the oldest and most traditional areas of engineering! I sincerely hope that you, as a new chemical engineering student will enjoy this program and will land yourself in one of the many industries or research areas related to chemical engineering. Most common and traditional applications of chemical engineering involve industries such as petroleum production (e.g. oil, gas, and lubricants), manufacturing of chemicals (e.g. sulfuric acid) and materials (e.g. various plastics), paper and pulp production and pollution control. However, at the present time chemical engineers are highly involved and are irreplaceable for some of the emerging fields such as pharmaceutical industry, biotechnology, electrochemical technology (i.e. fuel cells) and even some of the much more distant areas such as nuclear power and nanotechnology. Therefore I'm sure that you will find something you like within chemical engineering!

Most of the chemical engineering revolves around mass and energy balances, just in many different ways and complications. Pretty much all of the chemical engineering design can be traced back to the fact that mass and energy have to be conserved and cannot be destroyed.

Chemical engineering curriculum in the first couple of years mainly focuses on time-independent processes and processes in equilibrium and hence you will be learning a lot about thermodynamics. Once you get into late 2nd year and 3rd year you will learn more about time-dependent processes such as kinetics of chemical reactions and transfer of mass, heat and momentum throughout chemical systems. In late 3rd year and 4th year you will be able to apply those concepts to design of specific equipment, chemical reactors and control of processes. On top of those you will see courses that introduce math and programming concepts as well as some courses about direct applications such as biotechnology, material science and electrochemical engineering.

One last (but not least) fact worth mentioning is the difference between chemical engineering and chemistry. You will find that chemical engineering involves much more analysis, mathematics and use of computers than a degree in chemistry. Hence chemical engineering is an application of chemistry. Engineers are not really concerned about how chemical reactions come about and how to discover new ones. They are more concerned with how to use that knowledge in order to use mathematics, computers and engineering design principles in order to design an industrial scale process or a whole plant.

I sincerely hope that you will like the chemical engineering program here at University of Waterloo and wish you all the best in your studies!

Systems Design Engineering

JOAN ANG
3N SYSTEMS DESIGN

Greetings and welcome to Systems!

If you're like my class, many of you might not know why you chose Systems. Over the next few years, you'll grow and change, see many of your cohorts leave and new faces appear and you'll experience some of the most stressful but exciting years of your life.

I dread the question that people always ask: "What is Systems Design?" It's a difficult question to answer. In interviews, I answer the question with buzz words: "Systems Design is a systematic, holistic and multidisciplinary approach that can be applied to solving any kind of problem." But what does that actually mean? It means taking a wide range of courses – calculus, human systems, circuits, digital systems, fluid mechanics – with a group of students with diverse interests and backgrounds – artists, athletes, musicians, entrepreneurs, social activists, environmentalists, programmers, actors, directors – and eventually designing to solve problems you care about.

And what kind of jobs do Systems students get for co-op? All sorts: project management, programming, quality assurance, robotics, ergonomics, research, interface design, volunteer work in developing countries, jobs on the trading floor, teaching assistant positions. You name it, we can probably get it.

It's not an easy journey; along the way there will be a lot of uncertainty, and – when things get tough – doubt. Don't get discouraged and you're not alone. You'll have friends in your class and there are also upper year students in the class next door or across the hall. Come by, say hi, ask questions, get help.

And whatever you do, don't give up what you love. Be passionate and chase your dreams, get involved and journey together.

So welcome to the roller coaster of the next five years of your life, to joy and frustration, laughter and tears, and a lot of late nights. Enjoy the ride!

Electrical Engineering

ANGELO ALAIMO
2B ELECTRICAL

Welcome to Electrical Engineering at the University of Waterloo!

Five years of classes, co-op terms, work term reports, and course grades are ahead as you journey towards your convocation. It won't be a short trek, and by no means will it be easy, but it's worth it in the end!

For courses, your class will be the first through the new ECE curriculum. If you haven't already looked at the Undergraduate calendar, your first three academic terms at Waterloo are identical to your Comp Eng friends. Furthermore, the first year of your EE studies will include such course topics as math, physics, chemistry, programming, circuits, digital logic, and others.

Because of the new curriculum, I unfortunately cannot exactly comment on how it will be; however, many courses are the same or under different names than previous. From this, I can tell you my first year was a step up in terms of workload from high school, well actually, I'm going to say many steps up! With that said, I have found as long as I do my best to keep up with the class, seek help, and most importantly attend labs, lectures, and tutorials I can excel in my studies.

As you likely already know, Waterloo co-op is phenomenal! The job possibilities for Elecs are quite vast - from construction to software development, and I implore you to look at all options available to you on the job-search for your first co-op term. I can't stress the importance of a good resume and cover letter enough, so be sure to scope out the resume critiques in the first weeks of classes!

Apart from your studies, it's a good idea to get involved with some extracurriculars. Not only can they be a way to meet people, but they also allow you to practice skills, and can make you more attractive to job recruiters.

Well that's all for now, so enjoy your frosh week kids, and once again - Welcome!

Architecture

ANDREA MURPHY
4A ARCHITECTURE

Welcome first years to the University of Waterloo School of Architecture!

Congratulations on making it through the admissions process and all the way to the first week of school. To get through the next five years of your undergraduate career in Cambridge you'll need to heed a few warnings and remember some of these tips.

First of all, even though you may have already met them, be sure to get to know the administration at the school of architecture. They are friendly and always there to help you. Treat them with the utmost respect because they are going to be the people you turn to when you need help or advice during your time at school.

As an architecture student you are in for a unique first year experience since you have no residence and no meal plan like your main campus friends. With your peers you will soon get to know the student-friendly restaurants in town, the best hangouts, and your favourite pass-times besides working in studio. It might be a little intimidating, but remember that you are not the first students to ever have to venture into Galt for groceries: five years of students have gone before you and survived their first year without a residence. You can do it!

Getting through classes might not be the first thing on your mind during orientation week, but when it comes time to opening your textbooks and attending lectures, you will find that there is a lot of work to be done. Try to keep a balanced life with good food and staying active and having a social life as well as keeping up with schoolwork. This can be difficult to take on alone, but not to worry- you have all the rest of your classmates plus all the upper-year students who are all here to help you out. Asking questions of your peers and upper years will always result in new ideas and great discussions. Make no mistake, you are here to learn, yet there will be opportunities beyond the lecture hall to learn from students and the many experiences that they have had. Studio can facilitate debates on design and ideologies alike, but either way, get involved and open up to chat with your peers. You will be amazed at what you find.

Finally, in a shameless plug for this newspaper, I encourage you to pick up the Iron Warrior in Cambridge and read up on what the engineers are writing about. Just because you can't always be there and join in on the fun doesn't mean you need to be out of the loop when it comes to main campus events. There will also be an architecture article every edition- so be sure to look for that to see what the fourth years are up to in Rome!

I wish you the very best in your first week of classes, but before you get to worrying about that- enjoy orientation week and enjoy every event you can! You won't regret it!

Things That Every Undergrad Should Know

ANN-MARIE WINKLER
MECHANICAL ENGINEERING 2008

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.

-Voluntelling 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.

Nanotechnology Engineering

MINA LABIB
2A NANOTECHNOLOGY

Welcome to Nanotechnology Engineering at the University of Waterloo, or, as you get used to the many acronyms you will have in life, NE @ UW. As a Nano you are a part of 3 departments. We are a part of Chemical Engineering, Electrical and Computer Engineering, as well as Chemistry. You guys will be the fifth class of Nanos at UW, and these next 2 terms will see a couple of milestones for the program. Firstly, after your 1B in the winter, the very first class of Nanotechnology Engineers will graduate from UW. Count yourselves lucky as you are the first nano class ever to have fourth years to provide 'wisdom'. Also, we will have 4 entire classes of Nanos on campus this fall, so the prospects for this term's legendary status are looking good.

You can look forward to courses that are similar to other first year engineering students. If you haven't noticed already, the only courses that aren't labelled "NE" are the calc courses. You should be having a first year almost identical to the one I had, which is awesome, because I loved my first year. As well as the expected math, physics and chem courses, you will also be learning how to program in MATLAB, understand materials and their properties and learn about the fundamentals of nanotechnology. 1A shouldn't be too challenging, but be careful of any lazy habits you pick up, because 1B definitely steps up into new material. You should not worry however, there is plenty of time to do other things and get involved outside the classroom and have fun. You just need to be prepared to put in the work when and where you need to.

To end, I would just like to say that you shouldn't worry about your first year here. You will have a blast!

Sweet Date Ideas: Frosh Edition

ANNA LAFOYIANNIS
4A ENVIRONMENTAL

When I first came to Waterloo, I spent alot of time at the plaza. Since then, I have discovered a lot of great places in Waterloo to go out. As a girl in engineering, I have also gone on a lot of dates. I know it's hard to think of nice places to take a date when you're new in town, so for all you gentlemen, here is a listing of my favourite date ideas.

1. Symposium

Location: 4 King Street N

Cost: $5 for a drink, $8-10 for dessert, $15-$20 for a main.

Why it's great: Symposium has the best selection of cakes in town. At any time they have over a dozen cakes to choose from and they are delicious.

2. Stargazing in North campus

Location: North campus

Cost: Free

Why it's great: Stargazing is always romantic, north campus is quite quiet and the view is surprisingly good.

3. Show at Starlight

Location: 47A King Street North

Cost: Dependent on show.

Website: http://www.janebond.ca/starlight.html

Why it's great: Starlight brings fun acts to Waterloo and is always a fun time. For a girl that likes music, this would be a hit!

4. Uptown 21

Location: 21 King St N

Cost: $35-50 for a fixed price menu and drinks.

Website: http://www.uptown21.ca/

Why it's great: The food is local, including fresh baked bread. The menu changes every day and everything I've tasted there is amazing. It's pricey, so save this for a special date. You won't be disappointed!

5. Concerts at the Black Hole

Location: Perimeter Institute 31 Caroline St. N.

Cost: Dependent on event.

Website: http://www.perimeterinstitute.ca/Outreach/Black_Hole_Bistro/Black_Hole_Bistro_Overview/

Why it's great: PI is a really cool building and I secretly hope that I can absorb intelligence just from hanging out at PI. The bistro is really cute and the musicians that play there are very good. Events at PI always sell out, so get your tickets well in advance.

6. See a performance on campus, such as FASS, Engplay or With Respect to Time

Location: on campus

Cost: varies, usually less than $15

Why it's great: On campus events tend to be very laid back and casual. There's a lot of talent at Waterloo and these shows are really entertaining!

More great date ideas available on our website at iwarrior.uwaterloo.ca

The Frosh 15

Staying Healthy and Active

LISA TONG
3N CHEMICAL

For those of you who have not come across this statement before, you are in luck because I am going to explain this to you! The notorious Frosh 15 refers to the 15 extra pounds (or more) of weight gain and 15 points loss from your average from high school (but I won't be explaining this, you will hear a lot of this from your leaders and professors first week of class...if not, ask an upper year).

Moving away from home can be a difficult time especially when food is different and you resort to junk food which is very easy to obtain. Avoiding this habit is another thing that you must overcome because the results can have a negative impact on your body.

Purchasing healthy food on campus is very expensive and whether you realize it or not, there are other places other than residence or on campus to get your food (and not the plaza). This goes also for those who live in residence where a kitchen is not readily available when you need it. There are 24 hour Sobeys around the neighbourhood: If you live up on the north end of campus, taking the 13 bus (with your handy dandy Watcard— it provides you with free transportation wherever you need to go) will take you to Sobeys (Columbia and Fisher-Hallman), where the food is always fresh and delicious; or if you live on the south end of campus, taking the 8 east will take to you another Sobeys (Weber and Bridgeport) which is also 24 hours! Even if you miss the bus, it's a good workout to walk part of the way with all those heavy groceries! Valuemart is just on the other side of Waterloo Park, and has a good variety for a little cheaper.

You have other choices other than residence food, so use them. If you feel as though you are spending much more cash than meal plan money, I wouldn't worry too much about it. After your first year, all your meal plan money gets converted into flex dollars which will carry over every term.

Getting enough exercise is also another main issue, especially with the workload. Don't fret though, there are many ways to avoid the extra gainage. Although it does not have to be just going to the gym, there are other ways to get yourself active:

- Play activities with your floormates/roommates (ultimate frisbee, soccer)
- Go exploring around Waterloo - Kitchener (there's actually a lot to see outside of the University bubble)
- Go to Waterloo Park to see some animals/Columbia Lake for the scenery
- Take walks for breaks from studying
- Join intramurals or join recreational sports

I hope you all enjoy your Frosh Week 2014ers! And stay healthy!

HUMOUR AND SATIRE

New Hair, New Suit, New School, New You!

CHAD SEXINGTON
3.5 MANGINEERING

Hello Sexy Readers Old and New!

It's said that absence makes the heart grow fonder, and your absence has only made you finer, so that means you're already a double threat to start with! Also, welcome to all you sexy first years, I'm sure you'll fit in just fine. You may have noticed my absence from these pages last term, but I'm back and more attractive than ever, with many new adventures and a lot of stories to share, it's time to begin a new term of sexy parties and appropriately inappropriate actions. Also, welcome to all you sexy first years, I'm sure you'll fit in just fine.

This is Chad's Axe…

Second things first! Welcome back returning students. Summer is almost over, but I'm sure you've all got great tan-lines and ripped twelve packs to show for it. I hope you are able to get settled in and start increasing the size of your largest muscles, which is, for most people, your… brain.

Third things third: many words of welcome (such as, 'welcome', 'hello' and 'you can't use Watcard at the C&D') to our new students. Going away to university is a big step for a lot of people, and I think you'll find that, as difficult as it may seem, many new opportunities await you to become even sexier than you are at this moment. Welcome to the family, we're a good looking bunch aren't we?

First things second in the third slot on the list! Did you know that the Spur is back? Which means that some of you older-young people won't be Spurgins for the rest of your life. This news has made me extremely happy, and happy people are sexy people. Be sure to check it out, after the BOT party next week would be a great time to lose your Spurginity.

Finally, it's story time. They say a rolling stone gathers no moss, which I never really thought about before (and I'm not about to start now), but I'm not a rolling stone, I'm not a stationary stone, and in fact the only rock I've got in me is the rock hardness in my abs (sorry sexy Geo Ladies!). I figured this time, for the sake of the new people, that I'd share a little story from my past about making it on your own, how you view others, and really finding out something about yourself (other than that you're really really good looking), which you certainly can do here if you stop and think.

Many years ago back home in Sexyville, I was but a young lumberjack still fresh from the sapling groves of lumberjacking school. I was full of flapjacks and gumption, (which is also a flavor of syrup there, but the kind that was on the flapjacks that morning was maple, so I mean gumption in the sense of boldness), and was ready to take on the redwoods of the world. My two close friends from lumberjacking school, we'll call them laser brain and puma, were also ready to set out with me on the grandest adventure. We were going to test our axe-arms in the large heart of the great forest when we stopped by the best axe depot in town to pick up some supplies and barter for new tools of lumbersmithery as our sexy burly frames outgrew our old gear.

While at the trading post, we were discussing who the best lumberjack of the group was and the debate became quite heated. A man nearby (who would later come to be known as MC Pastaman in my other stories) heard our discussion and came over to propose a way to settle our great argument. "A Test!" declared he with a wave of his hand, "to decide who the greatest wood-cutter is in all the land," and we agreed heartily. Each of us would split up and split logs in our own style, taking a different direction into the woods and making what we thought was the best log cabin. As I sharpened my axe-blades and declared my imminent victory over my friends, I began to plan in my mind the grandest log cabin ever conceived. It would be long and tall, majestic, and use the most cutting edge cutting edges to create a seamless blend of new technology and old craftspersonship. And so I labored for a fortnight of fortnights, and spent many fortnights in my fort at night, working and resting and feasting on flapjacks and bison and wondering how each of my opponents was faring in their endeavors, for I missed my companions and their wily tricks.

And this is what he built with it.

At the end of the competition, Pastaman came a-rapping at my cabin door, and stood back to admire it with great wonder, for it indeed was a construction worthy of the cover of lumberjack monthly magazine. So proud was I of what I had wrought with my hands, that I eagerly went to view my other companions creations, and found that each of theirs was also one of the grandest constructions I had ever seen. Puma's cabin was elegant, with arches of pine and rich mahogany inlays, while laser brain had created a short, wide bastion of lumberjackery with massive trees easily outclassing mine. Upon seeing their creations I immediately declared each of them the victor, and they did the same upon seeing mine.

After they had showed me theirs and I mine, Pastaman had us gather round a roaring fire and looked at each of us in turn. "My friends" he said, "it is plain to me what you can't see." "There is great skill in all of you, just look at what each of you can do. There is no 'better' and there is no 'best', because you're each different from the rest. Each of you in your own way, has emerged the victor on this day. With your own styles and by your will, you all have shown your supreme skill. You will succeed in the world out there, so go on with your life and don't compare. What you do, do for you, because there is and there will only ever be, one you." And so my two companions and I thanked Pastaman for his rhymes of wisdom, and we each said our goodbyes, leaving upon our own paths to take on the world in our own way. Never again did we compare to see who was better at lumberjacking, because we all had our own strengths and ideas. We simply acknowledge that we are different and celebrate one another's victories like true friends do on occasion.

And that is the story my intrepid young friends. If you can glean the moral of the story contained therein, I congratulate you on becoming members of one of the sexiest institutions I have ever had the pleasure of being able to roam. Be sure to say hello if you see me, and look for my article in the upcoming issues. They're always one of the sexiest on the satire page, and they are read by only the most attractive people on campus. If you have any questions that you might want to me pour some wisdom-flavored syrup on, just email them to questions4chad@gmail.com and I'll do my best to give you the best looking response I can.

Until next time,

Stay Sexy!

The Adventures of Dangerman

Don't Panic, Be Dangerous

Dearest Reader,

The die is cast [1].

Before totally freaking out about facing your first year in engineering at UW, just remember: If some idiot named Dangerman managed to get an Iron Ring, while simultaneously achieving an epic fail in nearly every other capacity both personal and professional as a human being, you'll probably be okay.

Not to suggest your first-year of being a Waterloser won't be tough, but rather it will rebuild you. It will make you better, faster, stronger... they have the technology [2]. By the time you're done, you too may be a dangerous knowledge-wielding wunderkind that employers throw fistfuls of money at in desperation to employ.

Fortune favours the bold my young readers, but then so do mistakes. However, while normally I would counsel that making mistakes is the most human and beneficial thing a person can do in life, there's no reason you can't be original. Therefore avoid the following:

Dangermans's Top 10 Worst Mistakes of First Year (follow my example at your own peril) [3]:

1. Do NOT tell people your name is Dangerman and that your real name is your "slave" name.

2. Do NOT streak the intermission of a play with your best friend while someone video-tapes you and let it be put on the internet. It's worse than getting a tattoo; you can't laser-remove the results of a Google search. In my defence, it was also glorious.

3. Do NOT sit down to pee while wearing a toga...just trust me here.

4. Do NOT fall in love with your Don. I know they're often ridiculously attractive, but it is forbidden! I burned, pined, and perished for mine [4], "misplacing" my keys 5 to 6 times a month when she was scheduled for "door duty". Life is too short to try and catch the fish that won't be caught. After all, tuna already comes in cans...I'll let you wonder what exactly that means.

5. Do NOT fail to acquire at least a month's supply of clean underwear. Again, just trust me here.

6. Do NOT date anyone in your class. I know it seems like a good idea at first but then so was the Titanic, the Hindenburg and PDEng [5]. Oh the humility...

7. Do NOT skip class and expect some grainy photocopy of your classmate's notes to suffice. Can't wake up in time for class? Go camp out in the lecture hall of your first class the next day. Seriously, there is no substitute for actually being there. Plus camping is awesome; if anything can make calculus at 8 in the morning bearable, it's smores.

8. Do NOT spend all of your time studying. There are EngSoc events, student teams, clubs, parties. "Work hard, play hard". When in doubt, go to POETS the engineering student lounge in CPH Foyer, for all good things begin there.

9. Do NOT fail to realize that at Waterloo, the geeks have inherited the earth. Think of the lamest thing you like to do and I promise there are 30 people in your year alone that love it too. Get off your butt and make some friends.

10. Do NOT indulge the illusion that you can make it all on your own. Get by with a little help from your friends. Do homework in groups, sign up for study skills seminars, make use of Engineering Counselling, seduce a TA (I recommend the ones in physics). Half the reason I passed Phys115 was the love notes in my free-body diagrams.

Above all, remember that Dangerman is with you…well, sort of, but not really…I mean in spirit and stuff… but not dead or anything, though I have always had secret dreams of being Ghostwriter from that PBS show[6]. Rather, I am your friendly neighbourhood **alumni** advice person (you can bother me for guidance, but not money, it's all mine bitches).

Sincerely,
Dangerman
Eric.Dangerman@gmail.com

PS: Get a whisker-rub from Chad Sexington before all your exams and tell him Dangerman said it was lucky.

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1. "Alea Jacta Est, the die is cast" Julius Caesar; upon leading his armies across the Rubicon to seize control of Rome.

2. Probably paid for by WEEF, so appreciate your endowment fund and don't go sprinting for refunds.

3. See the Iron Warrior 2008 Frosh issue for supplementary advice on surviving 1st year.

4. The Taming of the Shrew - Shakespeare

5. While shamelessly using PDEng as a punchline, I should admit it was helpful in the long run yadda yadda.

6. Ghostwriter (1992) PBS "He's a ghost… and he writes to us. Ghostwriter."

IW RECOMMENDS

Game: Cargo Bridge
www.limexgames.com

STUART PEARSON
2T CIVIL

Inevitably, there will be times when you should be studying that your brain flat out refuses to focus. This tends to happen most frequently during finals. Should you choose to succumb to the bittersweet nectar of procrastination, it is at least important to channel your energy towards a single distraction. Try this: Cargo Bridge, where you can design truss bridges that are tested by little men who roll elephants across them. It sounds completely ridiculous, but the physics in the game are actually fairly realistic, so it is possible to fool yourself into thinking that perhaps playing *is* kind of like studying. Alas, this is not the case, as I discovered when I wrote my statics and solid mechanics final a few weeks back. Nonetheless, it's totally awesome, and you should definitely give it a whirl (especially the budding Civil engineers among you!)

Resource: Engineering Toolbox
www.engineeringtoolbox.com

MICHELLE CROAL
3N CHEMICAL

This is a neat site I found a couple work terms ago – absolutely awesome for checking up on some technical engineering aspect 5 minutes before your boss wants to see you about some important new project! With topics ranging from material properties to Rankine cycles, this should become your primary source for quick, reliable engineering concepts. Engineering Fundamentals (*www.efunda.com*) is also great.