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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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<http://iwarrior.uwaterloo.ca>

Welcome to Expedition Earth!

NIZAR HASAN & CASSANDRA LEAL
SUPERHUGES

Hello Frosh and welcome to Expedition Earth! Up to this point, you've hopefully received a couple of mail-outs and looked through our website so that you know a little bit more about University of Waterloo's Engineering Frosh Week. We hope you're just as pumped about the week as we are and that you've come prepared to have one of the greatest weeks of your life!

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

You may also be a little overwhelmed with the number of new faces you're meeting, but do not worry! We're all in the same position, so go and introduce yourself to another random! There's

an 8.33% (repeating, of course) chance that they're in your class! Better yet, they could be your long lost brother from another mother, or sister from another mister!

H'okay. So. You're now in your headquarters and you're a little scared, excited, or both! You've been given a sweet bag of loot and a snazzy new T-shirt. Now what, you ask?

Tuesday is packed with activities such as meeting the Dean and the infamous

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

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

After the student teams lunch, you'll get to meet our Engineering mascot, the TOOL. It's the ultimate and the all-knowing. It also loves spirit and loud noises.

Apart from the cross-campus events of Wednesday Night Mixer, Monte Carlo, and Saturday Night, the final Engineering event is the Hunt of Scavengers.

Now go forth and compete in events to gain tokens to try to win the week. There can only be one team...So will it be yours?

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



HEADCOM SPEAKS

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 HEADCOM Lumberjack and HEADCOM Highlander, 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 and your guides. We are a special group of senior students hand-picked by the Dean of Engineering from the top 2% of each discipline. We are the best and the brightest that 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 hard hat when, and if, you earn it, meaning that we are the ones who decide whether or not you are a Plummer; a true Waterloo engineering student. Once you have your hard hats, we will be there to watch your ENginuity during Junkyard Wars, and oversee all the events of the Scavenger Hunt. On Sunday, based on everything we have seen, we will decide who has won the week. And who has lost.

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

An Overview of Frosh Week Events

NIZAR HASAN & CASSANDRA LEAL
SUPERHUGES

Engineering Orientation Week features several exciting events 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 hard hat and Junkyard Wars. Let's also not forget about the infamous Engineering Scavenger Hunt! More information on these and the other events that fill your week can be found on the page numbered below:

See EPIC WEEK on Page 12



Your SuperHuges, Nizar Hasan and Cassandra Leal

Letter From the Outgoing Editor



ANGELO ALAIMO
OUTGOING
EDITOR-IN-CHIEF

Welcome to Waterloo! My name is Angelo Alaimo, and I was the Editor-in-Chief of this newspaper for the past four months from May to August. The second page of this newspaper is always reserved for letters to/from the editor but **don't let this wall of text intimidate you** - I can assure you it's full of useful and interesting information.

The Iron Warrior is completely put together by undergraduate volunteers of the Engineering Society, and for this issue we have completely focused on Frosh Week.

In a typical issue, the newspaper covers campus news, events, engineering topics, engineering society news, and much, much more. You'll see it pop up on our racks around the engineering buildings 5 times every term throughout your career here at Waterloo. If you wish to read more about the paper and how to get involved, check out our team's blurb on page 18.

To read past issues, check us out online at <http://iwarrior.uwaterloo.ca> and we even have twitter @theironwarrior!

Now, you've decided to come to Waterloo for a number of reasons, one of which I'm sure is reputation or even the Co-op program. To be honest, I grew up out west and never heard of Waterloo or what it was about until I received my acceptance to begin studies in September 2006. Once accepted, many people kept mentioning the difficulty of getting into Waterloo and that an excellent engineering and co-op program existed at the university. I investigated further and liked what the University was about, so I accepted my offer and looked forward to the following September. Since I lived on the west coast, I never had the opportunity to see the campus before coming the weekend before frosh week.

You know how people always say first impressions count the most? Well, once I arrived, my first impression with Waterloo was that I did not like it. In fact, I hate, hate, hated it.

I had a rough first year, perhaps due to my not so great first impression of the University; however, people have, and will always have rough first years at University. It's a huge change for many, and for me, it was a massive change of many orders of magnitude.

Not being able to do the same activities

I was used back home at Waterloo was one of the reasons I hated my first year. My studies consumed almost every second of free time available and I simply could not spend time on things I loved.

As I said, it was a huge change. It took time for me to adjust, and I eventually did find the time for activities. It took time, but I found a balance, and from that I was able to get involved. I started helping out with *The Iron Warrior* in my 2A term, and have loved it ever since!

Looking back at my first year, I wasted a lot of time not getting involved with anything at the University. Perhaps I was just too busy with school and not trying to fail, but there really is so much to do!

On the engineering side, we have many student teams just waiting to get some fresh minds to help out, and if those teams don't fit what you fancy, the Federation of Students has dozen more clubs to get involved with.

One of the best parts of being involved with teams/clubs/whatever is that you're with like-minded people. It's great to be with others that think the same way as you do and rest assured these people will eventually become good friends of yours.

Good luck in your studies and don't forget to Work Hard and Play Harder!

Letter From the Incoming Editor



ROY LEE
INCOMING
EDITOR-IN-CHIEF

Hello First Years! Welcome to the University of Waterloo! You may not be in the liveliest place in the world, but there are some pretty awesome people here and that's important, isn't it? I'm Roy Lee, the Editor-in-Chief of *The Iron Warrior* for the fall semester. If you see me around feel free to introduce yourself and say hi. Anywho, within engineering at Waterloo, you will most likely meet many different types of people. Orientation week is going to be the best time to meet some of those people. There is a massive group of upper years who have worked hard to make the week possible for you, when you get the chance to thank them please do they deserve it, other than that they are there to help you transition into university feel free to ask whatever questions you have if they don't know I'm sure they will redirect you to someone who does.

Now, if you are a little nervous, that is ok, I was nervous as well. I knew a few basic things when I got here, like how to do laundry, splitting up whites and colours... I just stopped wearing white clothes so I

didn't need to worry about that. I knew where I was living and that was about it. Oh! I knew how to cook, which is pretty much the most important thing to me. With that limited amount knowledge I trod the oceans of Waterloo and here I am now a year later as the Editor-in-Chief of *The Iron Warrior* for the fall semester. The ability to cook may have helped with that a little bit (not actually).

So now you might be asking yourselves what is *The Iron Warrior*? As you can tell *The Iron Warrior* is a newspaper. It is actually the newspaper for Engineering. There are other publications on campus that you'll see, however I am partial to *The Iron Warrior*. *The Iron Warrior* is put together by an awesome team of engineering students that meet weekly to help put together a bi-weekly newspaper. We are looking for anyone who has interest in journalism, writing, photography, layout design, production or even just trying something new. Production is incredibly satisfying and with the right group of people, which we have, it is a great way to take the edge off of a super busy day. Our email is iwarrior@engmail.uwaterloo.ca, so if you get a chance drop us an e-mail or come by and say hi in our office in upstairs E2-2349A.

Other than that there are a couple things I would like to share from my experience

of my first year.

First, as everyone else will tell you, get involved! A) It's super good for soft skill development, which is something you need for any job that you try and get. B) It's awesome for meeting new people. C) It will give you something other than school to focus on and that's key to keeping yourself sane and getting through engineering here at Waterloo.

Second, don't be afraid to try new things. There are so many possibilities at Waterloo. We have a huge amount of clubs that cover everything from robotics to dragon boat racing. There's undoubtedly something you'll find out about yourself that you didn't know at this same time last year.

Lastly, don't forget to have fun. Taking engineering does not have to be everything that you do for the next 5 years. Go out with friends and explore Waterloo Park, take some time to head up to St. Jacobs for the farmer's market, go out and see a movie. Put plan into a calendar to do these things, and other things will magically get done because you've prioritized taking a break.

Once again, welcome to engineering at the University of Waterloo. You've worked hard and deserve to be here, so make the most of your time here, because the next 5 years is all you.

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

Outgoing Editor-in-Chief

Angelo Alaimo

Incoming Editor-in-Chief

Roy Lee

Contributors

Adel Sedra
Ajoy Opal
Alessia Danelon
Alex Hogeveen Rutter
Alison Lee
Alroy Almeida
Andre Lo
Anish Bhutani
Amanda Leduc
Amrita Yasin
Angela Stewart
Anjali Gopal
Cassandra Leal
Cailin Hillier
Cara Kennedy
Craig Mackenzie
Chris Gilson
David Liu
Deidra Urbonas
Dominic Aquilina
Eric Cousineau
Eric Mallia
Erik Gaspar
Erin Matheson
Frosh Group Hugues
Graham Stonebridge
Griff Ferguson
Jameela Derrick
Jason Hofgartner
Jeremy Wing
Jessica Stevenson
Jon Warren
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Myles Tan
Nizar Hasan
Peter Kelly
Peter McClure
Peter Roe
Praveen Arichandran
Rob Sterling
Ross Ricupero
Sasha Avrelina
Scott Rankin
Sean O'Neill
Sean Walsh
Stuart Pearson
Sucharita Datta
Tim Bandura
William Hancharek

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.

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

First Meeting of the Term Monday September 13, 5:30 PM, E2-2349A

Meetings every Monday, same time, same place afterwards.

Fall 2010 Issue #1 Deadline: Friday, September 25th at 6:00pm for publication on Wednesday, September 30, 2010

Send your submissions to iwarrior@engmail.uwaterloo.ca

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Want to reach a wide, intelligent audience which includes students, faculty and staff of the University?

We are the official newspaper of the University of Waterloo Engineering Society representing the entire undergraduate engineering student body of over 6000 students.

Our newspaper is distributed all across campus and is perfect to advertise your event, employer information session, service, etc.

For more information, please visit <http://iwarrior.uwaterloo.ca/advertising/> or contact us at iwarrior@engmail.uwaterloo.ca, 519-888-4567, Ext. 32693

Welcome 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.

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 senior-year students can provide great insight. There are many other services and resources available: all you



have to do is choose to tap into them.

We recognize the importance of a vibrant student body and value the contributions our students make to the faculty, the university and the community. We encourage you to get involved with campus life. To help make your time at Waterloo the best possible Waterloo Engineering has a staff member dedicated to enriching your student experience. Robin Jardin is engineering's Student Relations Officer and your contact in the Dean of Engineering Office. Be sure to 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 please remember that our offices are always open, and we look forward to meeting and helping you. Enjoy your Orientation Week!

Best Wishes,
Adel S. Sedra
Dean, Faculty of Engineering

First Year Engineering

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 write 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 what to expect and on how to succeed in engineering at Waterloo.

What to Expect in Your 1A term: Each one of you will have approximately 30 hours per week of scheduled lectures, tutorials and laboratory periods during the 1A term. In addition, you will have to put in approximately 20-30 hours per week to study, review concepts and to finish assignments and reports. This adds up to 50-60 hours per week of work, it is more than a full time job! To manage this workload you may have to change your study habits and how you manage your life. Let me give you some tips on things that work, and some that do not work:

- Attend classes. Follow along with what the instructor is teaching in class. Ask questions. During classes do not logon to Facebook, do not watch videos or play games on your computer.
- Review your course material and complete assignments on a regular weekly basis. Do not try to cram the day before exams.

- Understand the underlying concepts that you are studying in class, instead of memorizing formulae. Solve problems to evaluate your understanding of concepts.
- Do not skip lectures and expect to learn everything by yourself from textbooks and notes. The internet is a wonderful creation, however, it does not contain the answers to all your assignments nor solutions to all your problems. Do not work late into the night on a regular basis.

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 priorities 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.

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 these resources.

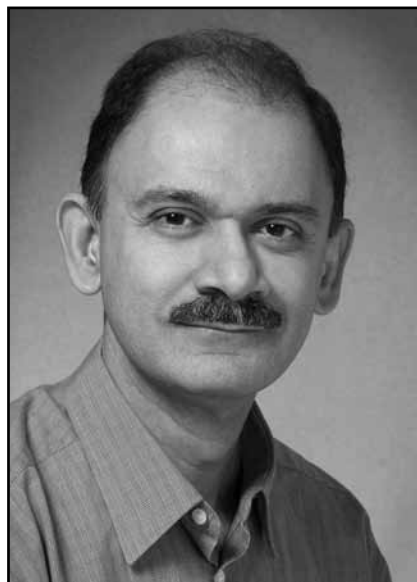
To get help with stress, personal issues, and to learn study and time management skills you can come to Counselling Services. There are Engineering Counsellors available within the First Year Office, or you can go to Needles Hall for additional university Counselling Services. For your

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 mind-body-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 maybe 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 at anytime you feel the need.

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 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, specially 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, are called professional programs. 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 jobs 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 loss of marks in a course, or all the way 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 disturbing your fellow students or the instructor by talking in class. Being professional to your fellow students will mean treating 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.

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 in-

clude 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 think-

ing. 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.

It's Hunting Season...

DEIDRA URBONAS CECS

...*Job hunting that is!*

You've made it to uWaterloo – a huge feat, and one you should be proud of! By now you've begun Orientation Week, an exciting and unforgettable start to your undergraduate studies. Although this week is full of fun and games, things will simmer down as soon as classes are underway. In addition to being serious about your school work, start giving some considerable thought to the upcoming co-op process you'll be a part of.

Waterloo's Co-operative Education program is the largest in the world, with almost 5,000 students participating each term. Since co-op is mandatory for the Engineering program, Engineering students make up a large portion of this number. That being said, the competition is tough, so go into the co-op process being aware of what to expect, and prepared for what it will take to land a job.

Be prepared!

In your first year classes, you'll start to learn co-op fundamentals, such as how to apply for jobs, how the interview process works, and how to develop an effective

résumé. It is important for you to realize that any experience you've had, whether it be paid or volunteer, is beneficial to include in your résumé, even if it is not directly related to what you are studying or the job(s) you are applying for. If you don't have any previous experience, use your first term at school to get involved and volunteer.

Staff from the Centre for Career Action can provide you with a résumé critique, and can also meet with you to practice one-on-one interviews. They also host many workshops that will help you learn about a variety of topics, such as business etiquette and professionalism. Employers also hold many information sessions, and these are useful to attend as they serve as a great networking opportunity (Check out careeraction.uwaterloo.ca for more information).

Securing a job

Many students are concerned about their chances of securing a job due to the economic recession. Typically, it takes first year Engineering students a longer time to find employment for their first work terms. You might be looking for work even after the work term has begun. Fear not, Engineering students! Approximately 85-95% of first year Engineering

students find employment for their first work term before the employment deadline. However, Co-operative Education cannot guarantee that you will find employment. If you don't find a job on our job posting platform you can secure your own job – just make sure to confirm it with your co-op advisor.

The life of a co-op student is often one of transition. You may land a co-op job that requires you to move to a different city or town. When this occurs, you'll be arranging your own housing and transportation. There are several resources available to help you find accommodation in unfamiliar locations, such as the Off-Campus Housing office's website at www.och.uwaterloo.ca.

Resources and support

For more specific and detailed information about co-op, check the Co-op Student Manual www.cecs.uwaterloo.ca/manual. Here you will find information about ranking jobs, work reports, and much more. As always, staff in Co-operative Education and the Centre for Career Action are more than happy to help you. Stop by the Information Centre in the Tatham Centre if you have any questions or need assistance.

Happy job hunting!

Volunteer/Internship Fair

Come and visit the volunteer/internship fair organized by Career Services. You can meet with representatives from a variety of local agencies to find out about volunteer opportunities. These agencies specialize in many different areas including: working with children, aiding seniors, caring for people with health issues, organizing art events, and many others. You can choose to volunteer in one of the hundreds of opportunities and gain valuable experience, as well as staying connected with the community.

Also, talk with representatives about opportunities that may include: administrative work, event planning/fund-raising, marketing, boards and committees, special events and recreation---just to name a few.

This event takes place in the Student Life Centre in the Great Hall on Wednesday September 22nd, 2010 from 11:00a.m. to 2:30p.m.

Canadian Federation of Engineering Students

KEVIN LIU
VP FINANCE &
ADMINISTRATION, CFES

So, you're involved with the UW Engineering Society and want to know if there's more out there. The Canadian Federation of Engineering Students (CFES) is a national, bilingual organization that represents approximately 60,000 engineering students across Canada. The organization is run completely by student volunteers (keep reading if you want to take on a position!), and offers services/events such as leadership development conferences and engineering competitions. Below are two events that you will not want to miss!

CFES CONGRESS 2011 St. John's, NL, January 2 - 7, 2011!

All CFES positions are filled at Congress, the week-long annual general meeting of the CFES, which takes place in the beginning of January. In addition to governance of the Federation, Congress is an excellent opportunity for inter-university student networking

and to meet industry contacts. In addition, students learn how to improve their own school/engineering society through knowledge and experience sharing. This year, Congress will be held from January 2 - 7, 2011 in St. John's, Newfoundland. To go to Congress, you must submit an application to the UW Engineering Society; for more information, be sure to be on the UW Engineering Society mailing list and talk to your Vice-President External for more details on being selected and funding.

Being a CFES Officer is an experience; it means you get to travel from coast to coast to conferences and meetings; for

the International Relations Commissioner, it means travelling around the world to fulfill your mandates. To offset the costs of travel, the Dean of Engineering usually provides funding to students that represent our school. Every position on the CFES and the work that comes with it play an important role for the sustainability of the organization. In turn, you gain professional development the practical way - by working through real-life situations, and not by writing essays.

To attend Congress 2011, talk to your VP External for more details and application deadline. If you are considering becoming a CFES Officer,

be sure to visit the CFES website

(www.cfes.ca) to understand the position you want to take on. If you have questions regarding the work, it might also be helpful to contact the person currently holding the position. Hope to see you at Congress 2011 in St. John's!

2011 CANADIAN ENGINEERING COMPETITION Montréal, QC, March 10 - 13, 2011

Canadian Engineering Competition, another event hosted by the CFES, brings together the best and the most talented students from across the country. The competition provides a unique opportunity for students, industry representatives and academics to connect in a professional, competitive and a social environment. Winning teams earn up to \$4,000, and are often offered employer job offers or graduate school scholarships.

Think you got what it takes? Start by competing in the Waterloo Engineering Competition: wec.uwaterloo.ca and sign your team up for a competition category!

Engineering Students Societies' Council of Ontario

ALESSIA DANOLON
ESSCO PRESIDENT

The Engineering Students Societies' Council of Ontario (ESSCO) is an organization that facilitates communication between all the engineering societies in Ontario. ESSCO represents approximately 24,000 engineering students at 15 universities across the province. ESSCO is the liaison with the PEO (Professional Engineers of Ontario), OSPE (Ontario Society of Professional Engineers), and CODE (Council of Ontario Deans of Engineering). The best way for ESSCO to do this, is to gather input from the engineering undergraduate students through their Engineering Society Vice President Externals. ESSCO then gathers with the VP Externals at each school to gather ideas, and bring them forward to these organizations with the purpose of bettering student life in engineering.

ESSCO hosts conferences every academic year, where engineering students like you from across Ontario get together, enjoy stimulating discussion during sessions, and have a lot of fun. These conferences include:

- First Year Integration Conference (FYIC) is attended by first year students and it's goal is to introduce stu-

dents to ESSCO in a fun and enjoyable way. This year FYIC is being held at the University of Guelph in February.

- President's Meeting (PM) is for the President and Vice President External from each school. They meet and discuss how the year is going. ESSCO PM is being held at York University this year in September.

- Annual General Meeting (AGM) is the meeting to elect the next year's executive, and set the direction for the new executive in the coming year. This year ESSCO AGM is being held at the University of Ontario Institute of Technology in May or June.

- PEO Student Conference (PEO-SC) is

run by the PEO and ESSCO to promote engineering to the public and promote the P.Eng licence. This year PEO-SC is being held at the University of Toronto in November.

These conferences are one of the main means by which ESSCO gathers valuable student feedback from its member schools. Students who feel that they can contribute ideas, or take back suggestions and help better the education and experience at their school, are encouraged to attend conferences and participate in the many valuable sessions and activities.

For those students who wish to participate in ESSCO and engineering outreach in a different way, there are the several

initiatives that ESSCO runs annually. These include:

- Wonderland Math and Science Day is when 30 volunteers from across Ontario go to Canada's Wonderland in May to help high school students with physics and math questions based on the design of the coasters at the park. The day includes a free pass to Wonderland for all volunteers, and the opportunity to show students the fun aspects of engineering design.

- National Engineering Month Rube Goldberg Project is held during Ontario's Engineering Week, and each school builds their own Rube Goldberg Machine in conjunction with high school students from the area. Each machine triggers the next school's machine via internet or cell phone signal, and the final product is one long machine that goes across Ontario. For a demo, search "ESSCO Rube Goldberg" on YouTube

- Engineers For the World Article (E4TW) is an article about famous, accomplished or inspiring engineers, written by undergraduate engineering students. The article is printed monthly and shipped to several high schools across Ontario. Look out for the article submission contest in September or October.



Engineering Student Societies
Council of Ontario

Interested in going on an International Exchange?

PETER ROE
DIRECTOR, INTERNATIONAL EXCHANGE PROGRAMS

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

and contacts from around the world.

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

We have exchange programs with some 60 top-tier universities in about 30 countries around the world. You need to evaluate which best suits your needs; some of our exchanges are restricted in numbers, some are open only to certain disciplines of engineering, for some you need to learn the language spoken in the country and used for instruction. In some of our exchanges it's easiest to go for a one-

term exchange; in others two terms, or even a full year including a work term is best. All this is a part of planning for your future career, which could take you anywhere in the world. To get started, visit our website, www.eng.uwaterloo.ca/~exchange for a wealth of detailed information and all the contacts you need to help you in the process.

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

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

"Doing an exchange was probably the best decision I have ever made. I learned

so much about engineering (of course), but also about European culture and history, and simply interacting with people of an entirely different background. The time and distance away from home, and the completely different lifestyle was definitely not easy to adjust to, but these aspects made the whole experience worthwhile." (Winnie Tse Mech 2009-10)

"I wouldn't have traded my experiences for the world. My time on exchange was great: I got to go travelling and backpacking, got to meet some fantastic people from all over the world, and I graduated on time with my class and my friends! ... If you are even just considering an exchange, I recommend without the slightest reservation that you go. Waking up and looking forward to every day in a new country... that's just not a feeling that you get [if you stay at home]!" (Matthew Lee SyDe 2005)



Creating Global Engineers

engineers without borders
ingénieurs sans frontières
Canada

University of Waterloo Chapter

LEAH HENDERSON
3N SYSTEMS

University students tend to become isolated from the world after one to five years on campus - so it may come as a surprise to us the way that engineers are perceived by the public. "Engineers Rule the World" and other such slogans show how some of us view engineering. Meanwhile, the public rankings of prestigious occupations place engineers below doctors, scientists, and teachers - near the middle of the ranking scale (Harris Interactive, 2006).

After 3 years in an engineering program myself, I have seen that engineers spend a lot of time and effort solving technical problems, but little time linking these activities to the overall goals. I think that we study engineering because we want to create change in this world, and that change is not limited to the bridges, circuits, cars, or dams that we create. We have some powerful knowledge that enables us to create large impact and changes in our world. So - why did you go into engineering? What kind of change do you want to create?

For us to start asking these questions and making changes to the public perception of engineering, it's not just us that has to adapt. The engineering curriculum and education must also play a role in transforming engineering. Unfortunately, the content of engineering education has been reduced over the past century to produce more engineers faster and process more revenue through the education business (Galloway, 2007). This has resulted in eliminating an essential aspect of engineering, which is "to improve the quality of life and to protect the public safety, health, and welfare" (Galloway, 2007). We are not properly trained in public policy, leadership, and communication skills. We also do not always take into account social and environmental considerations when designing a product.

A global engineer is a graduate with these skill sets. Focus groups conducted by Engineers Without Borders with engineering faculty, students, and industry leaders, as well as a definition from the University of Toronto faculty of engineering (Cheng et al., 2008) together created the following list of skill sets that create a global engineer:

- A mix of technical, cultural, and socio-political capabilities
- A strong grasp of systems thinking
- An entrepreneurial spirit
- Strong attitudes towards responsibility and continuous learning

The Canadian Engineering Accreditation Board (CEAB) has already begun working towards these changes. The CEAB 2007 Accreditation Criteria and Procedures includes the following evaluation checkpoints for engineering curriculum:

2.1.4 The criteria are intended to ensure

that students are made aware of the role and responsibilities of the professional engineer in society and the impact that engineering in all its forms makes on the environmental, economic, social and cultural aspirations of society.

2.2.7. Appropriate exposure to ethics, equity, public and worker safety and health considerations and concepts of sustainable development and environmental stewardship must be an integral component of the engineering curriculum.

Similarly, the Canadian Council of Professional Engineer's Vision for the Engineering Profession in Canada (CCPE, 2007) stated "Canadian engineers provide leadership to advance the quality of life through the creative, responsible and progressive application of engineering principles in the global context." This demonstrates the progressive nature of the engineering profession. But change is very slow going, and as students, we can be the catalyst for change.

Engineers Without Borders (EWB) Canada is an organization trying to create momentum for global engineers. This organization's two founding members are engineering graduates from the University of Waterloo, where the first EWB chapter was created. The UW EWB chapter began a push for creating global engineers in the past summer, by making 14 presentations to engineering classes on the concept of a global engineer. They are also working with faculty members on creating a definition of Life Cycle Assessment (LCA), with the goal of implementing it as a mandatory requirement for all design courses. For more information about this initiative, please contact curriculum@uwaterloo.ewb.ca.

We can keep ourselves informed - by reading the newspaper, taking some STV courses, having an international experience (exchange or coop), we can try to work towards becoming global engineers. Engineering is known to be the application of scientific principles to solve problems for the betterment of society (Chan and Fishbein, 2009) We can and will make an enormous impact as engineers once we graduate. Let's make sure that impact is a positive one!

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GET INVOLVED!

NIZAR HASAN
4N CIVIL

Welcome to the Waterloo!! Congratulations on choosing uWaterloo to help build your future over the next 5 years. It is now up to you, however, to build your education. UW President David Johnston says, "It is my hope that your studies won't get in the way of your education". He is referring to the skills, people, and new experiences that you encounter when getting involved outside your classrooms.

Perhaps like many of you today, I had chosen this University without knowing anyone attending it. The prospects of having to re-establish friendships and basically start from scratch were my Everest. Usual concerns such as acceptance, multiculturalism, and stereotypes were always on replay. I was surprised, however, to see these concerns decrease as I met new students and staff. The more involved I became within student life and various clubs and organizations on campus, the easier the transition into University became. You start to look up to certain individuals and aspire to be something like them. You also begin to set goals in mind for your remaining years and before you know it, you're hooked on extra-curricular activities. Putting that aside, it is also remarkable what others can teach you about yourself! Your fellow students will show you dedication, pride, and love for life at its finest, and best of all, they will always give you a laugh when you most need it.

Getting involved is also a great way

to keep busy and build your soft skills. Engineering is definitely a challenging program, and a positive, constructive distraction will help you focus. Having a non-academic task will give you something to look forward to once your assignments, midterms, and finals are done. You may also find yourself adding many lines to your résumé. Many times you will find a potential employer more interested in discussing your activities and interests, than your technical skills. You may also find that you are able to speak more confidently and passionately about what you do and why you do it, which will always leave a good impression.

Curious yet? Well, here is a mix of activities that I have been involved in or my friends have shared with me over my 4 year stay: Warrior Weekends, intra-mural sports (i.e. Dodgeball, Ultimate, Soccer), Orientation Week, charitable organizations (i.e. Food Bank), becoming a Don, Directorships within the Engineering Society, Salsa Club, Residence Tour Guide, Student Life 101, Fall Open House, The Iron Warrior, Engineering Student Teams (i.e. UWAF, Midnight Sun, Concrete Toboggan), Undergraduate Research Assistants and the Space Society.

What is listed above is a very small fraction of what you can get involved in. The most important thing to keep in mind is that if you have a passion, don't lose it. If you want to make change, then go for it. If you want to be a leader, then you have to take risks. But however you choose to get involved, make sure it makes you happy!!

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FOR ALL FIRST YEAR STUDENTS AT UWATERLOO A WELCOME FOR ALL STUDENTS AT UWATERLOO

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Mental Health, Campus Services and You

ANGELA STEWART
MENTAL HEALTH
AWARENESS DIRECTOR

Mental health is vital, but is often ignored when school, relationships, and life become complicated or stressful. Mental health issues include depression, mood disorders, psychosis, insomnia, disordered eating, anxiety, addiction, or self harm. There are many campus services that work to promote the well-being of students coping with mental health issues. As the Mental Health Awareness Director for the Engineering Society "A", I'm here to promote these resources and act as an advocate within the Faculty.

Counselling Services has trained professionals offering personal, confidential

counselling on an individual or group basis. Appointments are made by dropping into their main office in Needles Hall, room 2080, or by calling 888-4567, ext. 32655. A short interview and an intake form is required to better assess your needs before booking an appointment. Counselling Services also hosts a number of workshops. Topics include stress and anxiety management, exam preparation, and relationships to food. More information can be found at the Counselling Services website, <http://www.adm.uwaterloo.ca/infocs/>.

Health Services is the place to go to keep your mind and body healthy. Not only do Health Services provide urgent/walk-in care, physician appointments, and nutrition counselling, they also provide counsellor appointments and indi-

vidual counselling. Take the foot bridge to Health Services, across from the Student Life Centre (SLC). Appointments can be made by calling 519-888-4096 and are available on walk-in basis. Learn more at <http://www.healthservices.uwaterloo.ca/>

The Office for Persons with Disabilities (OPD) promotes the well-being of members of our UW community with disabilities through varied support services. Students with psychological or psychiatric conditions who can provide documentation regarding the nature of their disability from a qualified professional qualify for services by the OPD. An advisor helps develop appropriate academic accommodations. The OPD can help students make arrangements to obtain necessary documentation. If you

have a suspected disability, make an appointment to meet for screening of disability and referral to a qualified professional. Call 519 888 4567 x35082 or visit <http://www.studentservices.uwaterloo.ca/disabilities/> for more information.

There are a number of emergency services if you ever find yourself or a friend in crisis. UW Police are available 24 hours a day at 519-888-4911, as are the Mobile Crisis Team, 519-744-1813. The Crisis Clinic at Grand River Hospital can be reached at 519-742-361. Distress lines provide confidential, supportive listening at K-W Distress Line, 519-745-1166, and Telecare Distress Line, 519-658-6805.

University can be the best, most exciting years of your life; let's make sure they're healthy too.

You've Got a Friend in Me

KRISTEN ROBERTS
FROSH MENTORING DIRECTOR

So classes have started on campus and there are thousands of new faces; some of them know where to go and some of them appear just as lost and confused as you. You recognize a passerby but you just can't remember from where. Was he/she in your frosh group? Or class? Rez maybe? Or did you meet them at toga? And you were never good with names.

There is just so much new stuff happening. So many clubs to join, teams to sign up, hours of class to attend, assignments to complete, friends to meet, etc. The list goes on forever. You've heard over and over that university is the best time of your life and you want to do so much while you are at UW. So where to start?

Well, that's why we are here. For this Fall term, we are your EngSoc frosh mentoring directors. The events we organize throughout the term will be designed to target your needs, whether that's making friends, getting advice on how to study, relaxing or getting involved on campus. But the three most important things you need to know about these events are 1) they will be all ages and attended by both frosh and upper years, 2) they will generally be free and 3) they will be UBER fun!

For the month of September there is a bunch to look forward to including a tour of Uptown Waterloo, some fun pre-beginning of term part activities, the first EngSoc meeting followed by a surprise small mini event, and a trip to St. Jacobs market for fresh food and pastries. During the first week of class we will be coming around to all the first year classes to introduce ourselves and to tell you more. You can always check bulletin boards around campus

for more information on what events are coming up.

We understand that this is your first term and there is a lot you want to do and get involved with but at the end of the day, school is the number one priority. For this reason, the events we have this fall will be fairly low in terms of commitment. Come out to the things you can, for as long as you want, even if it is just to drop by and say hi.

For us, first year and our experiences were engraved deeply into our memories and we have some advice to help you make a smooth transition and succeed.

TIP 1

University is a time to step out of your little bubble, and meet new people! There are a million people flying by you every which way on your way to class, at events or even just when you are hanging out in poets. My advice is to really connect with the upper years, especially ones who are in your same program! Upper years always know the little tricks to assignments, they advice on how to study for certain exams and may even provide you with old lecture notes and assignments that will help you understand course topics! Upper years are a great resources when you want to know your prof's teaching style and how to do well in the that class! I know that I made friends with some upper years, and ended up studying with them at the library for exams. Whenever I had a question, they knew exactly what course I was talking about, and understood the topic well enough to explain it to me to make studying easy! Lastly, they are very good resources for any questions about your resumes for co-op! But how to find these upper year students? Come to EngSoc events, chill in

POETS and participate in frosh mentoring events! I promise you, most of the upper years don't bite! (You will get the odd one that does...)

TIP 2

EngSoc, that is, the engineering society, is your friend. It provides tons of services to engineering students, but you'll only benefit from many of them if you come to the events and meetings. While each bi-weekly meeting focuses on serious business, it is also filled to the brim with shenanigans and laughs. These meeting are also open to all engineering students and are followed by free dinner for everyone. That's right. A free show, and a free dinner. If you're too nervous to come all by yourself and hang out with the scary upper years (we've all been there), bring a friend or a classmate. At the meetings, you'll get to learn all about upcoming engineering events, far away conferences you can apply to attend, as well as many issues that affect all engineering students. My advice for you is to come to an EngSoc meeting. Just try one out, and I'm positive you'll learn about an event you'd like to attend, an issue you care about, or at the very least, meet a ridiculously cool person. And if you love it, run for EngSoc class elections, where class representatives (the people who vote their class' opinion's at EngSoc) are elected.

TIP 3

For heavens sake, bite the bullet and WALK INTO POETS! First of all, talk about most comfortable seating on campus. What better way to wind down over a lunch break, or after that tutorial with that

really horrendous quiz or after the seemingly longest lecture ever! Second of all, you will be immersed in a new culture of TV and movies that you may have never thought of watching until you saw it on the big screen (if you didn't already know, POETS has it's own sound system + 1 crazy awesome projection screen). Thirdly, why hear about shenanigans when you can see it LIVE! Past events put on by the NEAC (Nonexistent Action Committee) include sodding the entirety of POETS, leaving out "treats" for Easter, and filling the room with balloons. Finally, it's a way to meet the coolest people on campus! The majority of my closest friends come from lunches in POETS, and I can't wait to return to this routine this fall!

TIP 4

And finally, although it's sort of expected: Become familiar with the campus. Explore everything (that isn't locked). Don't just stick to the engineering quads. Find the underground tunnels and the overpasses, the great places on campus to eat or study, the awkward staircases in RCH or the good vending machines. Find the Spirit of Waterloo (hint check the Rock Gardens). Not only will it impress your friends when you can get from MC all the way to DWE without going outside in the winter, but it is a lot of fun. If you have the time, grab a friend or two and travel outside of Ring Road. Maybe visit the animals in Waterloo Park on a study break or go on a bike ride north of the campus. Sure it will be trial and error, but only by exploring will you get to know about the campus, the services and all the UW has to offer.

Later days

The Frosh 15: Staying Healthy and Active

LISA TONG
4A 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! Valuemarket 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 2015ers! And stay healthy!

A Welcome From Your Colour Group Leaders

Read up on your group's theme, and learn the names of the groups huges!

LIGHT BROWN SAVANNAH

You know they say life is an adventure. Well what better way to start your new life in engineering than on a African Savannah Adventure.

We, the light brown huges would like to extend a warm welcome to all of you soon to be engineers joining us on this Waterloo Engineering adventure. To those in light brown, we cannot wait for you to join us and the light brown bigs on our 'oh so' exciting and highly anticipated Savannah Adventure.

On this adventure be prepared to encounter lions, zebras, hippos, hyenas, rhinoceroses and who knows what else. Since the African Savannah is quite large we are in for long trek with many exciting opportunities to come and of course maybe a surprise or two, but we are engineers we can make our way through anything! So be prepared to work together and get dirty, we can't wait for you to join us!

*Caitlin, Corey, James, Leslie, Sarah
Light Brown Huges*

LIGHT BLUE SKY

Welcome soon-to-be engineers! We are the light blue colour group and our theme is SKY! "What is so great about the sky?", you ask. IT'S LIGHT BLUE and light blue loves things that are light blue.

More importantly, it contains many wonderful creatures. From mythical dragons to lovely lady bugs. But one thing in common about creatures in the sky is that they often travel faster than creatures on the ground.

The sky is very big, having a presence in all the regions of planet earth. This allows for the sky to contain a bit of everything. But! Creatures aren't the only thing in the sky.

Weather patterns set the "landscape" of the sky. From fluffy clouds, to humongous hurricanes. And airplanes demonstrate the freedom of being able to move in 3 dimensions. The sky, in all its diversity, is truly an exciting place for the expedition of orientation 2010.

*Rebecca, Amanda, Yousif, Chris
Light Blue Huges*

DARK GREEN JUNGLE

Are you ready to step inside the dark abyss of the jungle trees? To slither with the snakes, swing with the monkeys and hunt with the tigers?

We sure hope you are, because dark green's theme is THE JUNGLE. We will run, scavenge, build, dance and work together to make this orientation week the best ever and on our way, coincidentally stumble upon...complete colour group domination! The next week will be filled with fun times and laughter, and you'll find out just how amazing Waterloo Engineering is. A great man once said: "Welcome to the Jungle, we got fun and games, we got everything you want..." and we firmly stand by his affirmation.

*Adam, Ioana, Alroy, Sara
Dark Green Huges*

YELLOW BEACH

When the colour groups are listed alphabetically it's easy to say they saved the best for last. The yellow team is going for gold this year, but hey we're basically golden anyways! If you are one of us then welcome to the Beach Team! Here at the beach we enjoy the summer sun and remain the home to many not-so-exotic wildlife such as the graceful seagulls who steal your food, mussels, barnacles and of course PLENTY of crabs. Don't worry though, as we still have the best parts of the beach too, beach balls, umbrellas for shade, sand castles and beach volleyball.

Did I forget your favourite beach animal or maybe I missed the best beach activity? Either way if you're with the yellow team then grab your boogie board and come on down to the beach and get your tan while we prove we're the best team around!

*Zack, Sean, Sarah, Nicole
Yellow Huges*

LIGHT PURPLE URBAN ENVIRONMENT

There's no environment more diverse than the urban environment. From the towering skyscrapers that challenge the sky to the complex tunnels of walkways, subways and pipelines that form a maze underneath the ground, no natural environment can even compare to the diverse, entropic nature that cities have.

No other environment better defines what it means to be an engineer. Where else does mankind constantly challenge the boundaries of nature? And let's be honest, city-folk have the most fun.

Light Purple (most commonly referred to "Lurple") will be victorious this year.

Are you ready for mayhem? Are you ready to challenge yourself? Are you ready to learn what it means to be an engineer?

We'll see you on the streets!

*Trevor, Adriana, James & Aldo
Light Purple Huges*

DARK BROWN CANADIAN WILDERNESS

"Hello" and "Bonjour" from the Dark Brown team, representing the Canadian Wilderness during Orientation Week 2010! That's right! Here at a Canadian university in the middle of suburbia you can experience the rough yet charismatic beauty of our own wilderness! Bears, moose, beavers (nature's engineers), trees, James "Wolverine" Logan, rocks, wolves, @ uwgeese, water; we have it all within our domain! For one week, and one week only, you can be part of the territory that makes up most of this beautiful country. Also, you could take a trip and head just outside our fair city and be a part of it whenever you please! The bigs and huges have had a lot of fun coming up with ways to make your week extremely spectacular and we can't wait to meet as many new people as possible and share our experiences of life at Waterloo! Moose call with me now! MRRRROOOOOOOOWWWWWW-WNNNNNNNNN.

*Nicole, Rachel, Kevin, Bryan, Chris
Dark Brown Huges*

LIGHT GREEN SWAMPS

Swamp Thing - you make my lungs scream - you win everything, Swamp thing! (to the tune of wild thing). Welcome to the dark and dirty Swamp of Waterloo. We have trekked all the way from the great grass lands of around the world to prove that the Swamp is the best animal kingdom out there. Swamps are everywhere in the world housing many different type of animals from a terrifying anaconda (the biggest snake in the world) to handsome toads (the animals you kiss to find your prince). This week as a team we are going to show the other teams our ultimate traits of intimidation by acting like a vicious anaconda, of beauty by portraying the graceful great blue heron and by being mischievous like the robbers of the night, a raccoon. We also represent the misunderstood SHREK! Ogres are epic. We have to protect our swampy land and combat the other animal kingdoms who are trying to take over our territory, because Shrek can't handle people in his territory! Help us protect our land, our kingdom, and our King Shrek. We will be the biggest, baddest Ogres and Swamp Things out there.

Remember, Ogres are like onions, Onions have layers, Ogres have Layers. Onions have layers. You get it? We both have layers. Layers that we will use to Win this thing!

*Tim, Lindsay, Shane, Lisa
Light Green Huges*

PINK POLAR PINK

Good show everyone; I mean really, you looked great out there. We rocked the week and we looked pretty in pink at the same time. Obviously the sexiness was due to our really, really, ridiculously good looking frosh. Most beautiful group of people I've ever seen in one place and I'm a life-time member of the Beautiful People's Club. Expect your invitations in the mail, and don't forget to sign up for the newsletter. They have coupons for things pretty people need. You know. To stay pretty. You know who doesn't need stuff to stay pretty? Penguins. And you know who else? Terrifying, blood-thirsty polar bears. Silly polar bears, always hungering for blood. That's exactly why we chose to be Polar Pink. It had nothing to do with the fact that "Polar" begins with "P", or that we had an unhealthy fantasy about armies of penguins and polar bears launching a devastating invasion of the tropics. No, no. It had to do with how good-looking they are. After all, nothing else would cut it for you, our drop-dead-gorgeous frosh. Stay pretty, Pink Team. Stay pretty.

*Rob, Deon, Jon, & Jackie
Pink Huges*

RED BARNYARD

Hey Frosh - Got Milk?

Welcome to the inc-RED-ible team that is Barnyard! Get ready to join your Bigs and Huges on an unforgettable expedition. We've got cowbells, straw hats, roaring tractors, hay, and HOE DOWNS! It just doesn't get any cooler than this.

Be prepared to use all of your ingenuity, skills, and talents to help us moo, cluck and nay our way to victory. This is going to be a BAAwesome week, so make sure ya'll load up on that calcium and them eggs.

We're all very excited to meet you! YEE HAW!

P.S. Don't forget to practice your cow-tipping skills.

*Misha, Duncan, Tim and Amalia
Red Huges*

DARK PURPLE MYTHICAL KINGDOM / MAGICAL BEASTS

A purple-mauve kaleidoscope of Narnia-like proportions, the Kingdom of Durpledom is home to many a creature. Unicorns race the beaches of the Durple sea, while durple dragons soar overhead. The gnomish caretakers of Durpledom administer to the running of the kingdom, while Centaurs act as lawmakers and guards for the Capital City of Durple.

Throughout the kingdom, Durple Castle is visible as a symbol of the complete awesomeness of Durpledom. Satyrs and Nymphs play hide and seek in the woods, while Kappa and dryads frequent the streams and rivers. Minotaurs sell goods of precious metals, wood and glass to sprites and fairies, while giants and Cyclops roam the land looking for the perfect backscratcher.

The mythical kingdom of durple is found in the heads of exam studiers dreaming they were somewhere else; however, despite the overwhelming amount of volunteers, it was found that opening said heads does not in fact create a doorway to said kingdom.

Never before has the Kingdom of Durpledom involved itself in the goings-on of the mortal world, but the significance of frosh week 20-X was too great an opportunity to miss.

*Leah, Scott, Hershel, Lisa, Jordan
Dark Purple Huges*

ORANGE AUSTRALIAN OUTBACK

Aussie! Aussie! Aussie! Oi! Oi! Oi!

Hey fantastic first-years, and welcome to the amazing team orange!

In accordance with this year's Expedition Earth theme, our team's theme is the Australian Outback! We're bring a little piece of the land down under to the week, along with lots of Aussie spirit, our flawless accents, and perhaps a guest appearance by a kangaroo!

All of our super amazing Huges and Bigs are really excited to meet you all, and we're ready to answer any and all of your questions about starting out in Engineering and show you the ropes around campus. Most importantly, we're ready to help you guys show the other teams that no one messes with the Outback! So come on out and bring your energy, but most importantly get ready to have an amazing week!

*Craig, Erin, Graham and Kyle
Orange Huges*

DARK BLUE UNDERWATER KINGDOM

Who lives in a pineapple under the sea? DARK BLUE, THAT'S WHO! ...Okay, we confess. We don't have a pineapple as of yet, but we're workin' on it. However, while you're already here, we're the Dark Blue Group for UW Engineering Orientation 2010, and our theme is The Underwater Kingdom!

Shipwrecks, sharks, whales, seaweed and sunken treasure await you in our headquarters. Dive below the depths with us as we battle to become the most feared colour group this side of the Great Barrier Reef!

We're a team of highly dedicated leaders who want you to have the best Orientation Week experience possible, and we're happy to answer any questions you have about the school, the week, or engineering as we see it.

Hold your breath and jump in... the water's great!

*Alysha, Angela, Cass, Mark, Mina
Dark Blue Huges*



EngSoc: Services, Representation, and Events

A Comprehensive Introduction to the World of EngSoc, By: Eric Cousineau

What is EngSoc?

EngSoc, short for Engineering Society, is your undergraduate student society, and we do a lot of things. Every undergraduate engineering student is a member, and pays a \$14.25 fee each term. This fee is our only source of income, which we use to support all of our services and events. This article will answer some very common questions that we receive about the society in general.

Why is there an "A" Society and a "B" Society?

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 entities, allowing us to maintain a consistent set of executive, directors, and members. A-Soc consists of students having a spring term in an odd-numbered year, and B-Soc represents students having a spring term in an even-numbered year.

What kind of social events do you run?

EngSoc hosts lots of social events, it's probably what we're most known for (probably because they're pretty awesome). While it's true that we host social events, it's too easy to forget everything else we do. I'm sure there are lots of articles in here describing events, so I am going to refer you to our website for descriptions of all of our events, instead of going into detail here (<http://engsoc.uwaterloo.ca/events>). Navigate by selecting different categories on the left hand side, Eg. "Social/Fun".

Okay, I don't go to events, what else can you do for me?

EngSoc has a TON of services, and all students that don't refund their EngSoc fee can take advantage of them. I'm going to list them ALL off quickly: Exam Bank, Work Report Centre, Course Critiques (those forms that you fill out to evaluate your professor each term), Resume Critiques, academic rep training, Novelties Store (that swag shop beside POETS that's open at lunch), cheap photocopying, binding, laminating, faxes (all in the EngSoc Office which we call Orifice), courtesy phone (In E2 Foyer, free local and on campus calls), Orifice front desk is staffed 8:30-4:30 to answer miscellaneous student questions, POETS (we maintain it, provide services such as: showing movies and tv shows, student lounge space, games and activities, venue for student group events, and bring in bar services Thursday/Friday at lunch to sell beverages), sports equipment (football, soccer ball, dodgeball, frisbee), and certainly not least the CnD (Really cheap; coffee, snacks, and food). I know this is a long list, but EngSoc provides a lot of services EVERY DAY to students.

Cool, that is a lot of useful services, do you do anything else?

Aside from the plethora of events, and multitude of services, we are officially YOUR VOICE to the faculty and the rest of the University. The President, VP Education and a few directors sit on countless committees, councils, groups, and even tribunals. Yes, EngSoc fights for your rights as well! A few highlights that you may or may not have heard of: Co-op Working Group, WatPD-Engineering Curriculum Committee, WEEF Board of Directors, and over a dozen more. I implore you to visit the representation section of our website to see where and how each executive represents you (<http://engsoc.uwaterloo.ca/executive/representation>).

I've been hearing some stuff about conferences, what are those about?

As if we didn't represent you enough, we love you so much we even leave this campus we call home and travel, Ontario, Canada, and even the world to make sure Waterloo Engineering has a voice, and believe me it's a strong one!

Our student society is a member of ESSCO (Engineering Student Societies Council of Ontario) and CFES (Canadian Federation of Engineering Students), and interacts with students from other parts of the world as well. Waterloo attends several conferences each year and bring along student delegates, for example, both Waterloo A and B attended ESSCO AGM in Ottawa in late June. For more info on conferences see: <http://engsoc.uwaterloo.ca/events/conferences>.

Seems like you do a lot of things for your members, what do you do for non-members?

EngSoc does care very much about people who aren't engineering students, as demonstrated by all the charity and community outreach events we run. Some community charity events that have been hosted in the past include Cancer Head-shave (very successful), Bus Push (pull a GRT bus from campus to Kitchener), and Purpling for Alzheimers (Read more at: <http://engsoc.uwaterloo.ca/events/charities>). We organize outreach events like Shadow Day, and Explorations that allow elementary and high school students to get exposed to Waterloo Engineering. We also have a float in the local Santa Claus Parade every year, host a Remembrance Day Ceremony in CPH Foyer every fall, and have a huge part in organizing Canada Day Celebrations (<http://engsoc.uwaterloo.ca/events/outreach>).

How will I know when all this is going on?

We advertise and communicate all of these things as much as we can through tons of different mediums. We use poster boards, our mailing list, announcements at EngSoc Meetings, Facebook Events and Groups, our Google Calendar, the whiteboard outside the Orifice, and we even have a TV outside the CnD with advertisements on it. For info on joining our mailing list or google calendar see the home page of our website. To preview the google calendar go to the event page included above.

This sounds great, who organizes all of this?

Guess what!? Everything, and I mean everything that I listed here is student-run and organized (with some help here, and a ton of help there from Mary Bland, Full Time Business Manager). Getting involved in something outside of class gives you the chance to build your leadership, communication, and other management and soft skills. I highly suggest that YOU get involved in the Engineering Society either by attending events, making use of our services, or even becoming a director or executive.

It is a very rewarding experience, and allows you to make the school a better place for everyone. For a list of current directors go to: <http://engsoc.uwaterloo.ca/directors>

You mentioned executives, what are those?

EngSoc Executives are officials of the society that are elected every other on-stream term. Watch our communication channels for info on elections (Next elections: Winter 2011, Spring 2011). The executives are responsible for the society and its well being. It's our job to maintain the three pillars of EngSoc: events, services, and representation, as outlined in this article. We are in charge of directors, and any other initiatives on the go. Please see the next page for more in depth explanations of each of the 5 positions.

Thanks for the explanation, do you have anything else to tell me?

That was a quick factual explanation of what EngSoc does for students, especially things we do for the entire student body. EngSoc is here to represent the interests of all students, and we really try our best to reach out and positively affect as many students as possible. We would really like to see significantly more students getting involved in the Engineering Society, and come out to our events and have a blast! If you have any questions about what I said here or you have an idea of your own for something EngSoc can do/run, please don't hesitate to drop any of the executive a line, and tell us your thoughts (eng_exec@engmail.uwaterloo.ca).



Technical Speaking Competition

Do you have an interesting engineering-related technical topic you love talking about?

Do you possess excellent presentation skills?

Would you like to win some money?

If you answered 'Yes!' to the three questions above, consider participating in the Sandford Fleming Foundation Technical Speaking Competition.

Six Waterloo engineering undergraduate students will give 12-15 minute technical presentations, each followed by an opportunity for questions from the audience.

The top two presenters will be awarded \$400 and \$200 respectively. The top presenter will represent the University of Waterloo at the Next Ontario Engineering Competition in Winter 2011.

For more information check out:

<http://www.engineering.uwaterloo.ca/~sff/Competitions/TechnicalSpeaking/>

Contact Douglas Harder, dwharder@uwaterloo.ca, to sign up. Competition to take place on September 30, 2010

ENGINEERING SOCIETY EXECUTIVE REPORTS

Welcome from your Engineering Society Presidents

**TIM BANDURA
SCOTT RANKIN**
PRESIDENTS

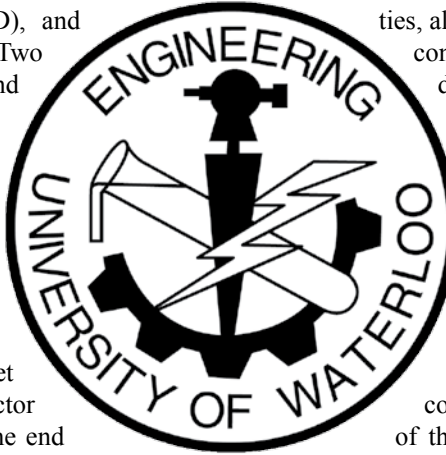
Welcome Class of 2015! We are your Engineering Society Presidents: Tim Bandura (A-Soc) and Scott Rankin (B-Soc).

The Engineering Society is the official organization of all engineering undergraduate students. You can think of it like a bigger and better version of your high school student council! We exist to support you throughout your time at Waterloo, whether it is academically or socially. We provide academic services such as résumé critiques, online exam bank, and cheap report-binding, as well as a wide variety of events throughout the term ranging from trivia competitions to curling 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 nonprofit 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 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 A-Soc, and half of you will switch to B-Soc in the winter (anyone who has class scheduled from January to April [8-stream]).

We hold biweekly council meetings with all of the executive and representatives from each on-stream class. You will elect class reps in the first week, who hold voting privileges for your class, but everyone is welcome to attend and voice his or her opinions. Our first

meeting will be on Wednesday, September 22nd at 5:30pm in Carl Pollock Hall (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 dinner 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!

Welcome from your Vice-Presidents External

**LEAH ALLEN
KEVIN LING**
VICE-PRESIDENTS EXTERNAL

Welcome engineering class of 2015 to the University of Waterloo! Hopefully you are starting to get settled in here and that you are getting every experience you can out of Orientation Week!

First we would like to introduce ourselves. We are Kevin Ling (B-Soc) and Leah Allen (A-Soc), your Vice-Presidents External of the Engineering Society at the University of Waterloo. Leah is currently going into her 2B term in chemical engineering and Kevin just finished his 3A term in computer engineering and is going into his co-op term. If you don't already know, Waterloo has two amazing Engineering Societies because of how the co-op system works. This means that Leah will be on campus with you on Engineering Society "A" in the Fall term, and Kevin will be back to run things in the Winter term with Engineering Society "B". We are both outgoing and approachable people so feel free to contact us anytime if you have any question about our positions, the Engineering Society, or the university as a whole.

As the Vice-Presidents External, our main duty is to be a liaison between our Engineering Society and external organizations, representing YOU! We attend many conferences each year across the province and country to meet with students from other schools. This allows each school to share ideas, discuss any

issues regarding undergraduate engineering students and lobby issues related to engineering. For many of the conferences there is a chance for any society members to attend and gain valuable skills to better oneself and better the Engineering Society (THAT MEANS YOU!). ACTUALLY, there is a conference just for first year students called the First Year Integration Conference (FYIC). This year, FYIC

will be held in Guelph and each society gets to pick a delegation so we encourage you to APPLY!

One of the main external organizations that we work with and that hosts many conferences each year is the Engineering Student Societies' Council of Ontario (ESSCO), which each of you are a member of. ESSCO is very much like our Engineering Society but it represents all 15 schools

province-wide. Another organization we work a lot with is the Canadian Federation of Engineering Students (CFES). CFES is similar to ESSCO in that it runs a lot of similar events but on a national level, giving you the opportunity to meet engineering students from across the country.

Professional Engineers of Ontario (PEO) and Ontario Society of Professional Engineers (OSPE) are also professional organizations that we work with a lot. Over the next few years you will learn a lot about PEO and OSPE because they are crucial organizations representing the engineering profession in Ontario.

Another one of our main duties is outreach which includes charity events (head shave, bus push, Movember), National Engineering Month, Women in Engineering and community events (Canada Day Celebrations, Santa-Claus Parade). This year we are planning a "Meet your Executives" charity BBQ that will take place in the first few weeks of classes. We also are in charge of the Waterloo Engineering Competition (WEC) that allows students compete in design engineering and consulting divisions. This year WEC will be taking place the first or second week of November so be sure to register a team!

We are super excited that you are here at Waterloo and if you have any questions please do not hesitate to contact us at (*asoc_vpext@uwaterloo.ca* or *bsoc_vpext@uwaterloo.ca*). Be sure to come out to the first Eng-Soc meeting of the term! There's free food!



Engineering Society "A" Executives (Left to Right): Sean Walsh, Marc Tan, Tim Bandura, Leah Allen, and Eric Cousineau

Welcome from Your Vice-Presidents Internal

**SEAN WALSH
PETER KELLY**
VICE-PRESIDENTS INTERNAL

Oh? I didn't see you come in there. Well don't be shy, sit down. Would you like some coffee or tea?

I'm Sean Walsh and I am the VP-Internal for A-Soc, for Fall 2010 and I'm Peter Kelly the VP Internal for B-Soc, for Winter 2011. We're going to give you a quick breakdown as to what we do, and what you can expect from us throughout the term.

What does the VP-Internal (VPI) do?

Our main job is to make sure that you and your class have a good time at Wa-

terloo. We make sure that each class has a representative present at our biweekly meetings, so that they can vote on matters that will affect their time here at Waterloo. Class reps should be elected at the start of the term, but the A-Soc exec team will tell you more about that during class visits.

Another major part of the VPI role is to oversee the running of some great events throughout the term; Genius Bowl (Trivia Competition), Semi Formal (Fancy dinner/dance), Art (photo contests, finger painting, etc.), Music (open mics, rockband competitions) and TalEng (engineering talent show). These are just to get us started, there are plenty more, which are a blast to attend and even more fun to run,

so get involved! If you have a certain type of event you'd like to see run just let Sean or Peter know.

How to get more information?

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_a_general/subscribe

3. By emailing either of us at *asoc_vpint@engmail.uwaterloo.ca* (Sean) or

bsoc_vpint@engmail.uwaterloo.ca (Peter)

4. By checking our event calendars. There is the Google Calendar which can be found in the group, or the official Engineering Society calendar on our website: <http://www.engsoc.uwaterloo.ca/events/calendar>

5. Read the scrolling marquee in CPH foyer. You never know what little tidbit of information it may have.

6. 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!

ENGINEERING SOCIETY EXECUTIVE REPORTS

Welcome from Your Vice-Presidents Finance

MARC TAN
JON WARREN / MINA LABIB
VICE-PRESIDENTS FINANCE

Hey Everyone!

We are the Vice Presidents of Finance (VPF) for both the Engineering Society 'A' and 'B'. We are responsible for the effective allocation of the refundable \$14.25 fee you pay each school term to use the Engineering Society's services. Everyone this fall will get to know Marc Tan as the VP Finance for Society 'A'. For those of you who will stay in school this winter, Jon Warren will be your VP Finance for Society 'B'.

The primary role of the VP Finance is to manage the Engineering Society's budget by way of effectively dispersing funds to the society directors which run the events

and services you will come to love. Before the second society meeting of the term, directors will submit their individual budget proposals to us. With this information, as well as the known operating costs of our Society, we prepare a budget which gets presented and approved at this second society meeting of the term. The VP Finance provides updates on the Society's budget at each meeting, as well as in *The Iron Warrior*.

The VP Finance also manages the Engineering Novelties shop, where you can purchase UW Engineering clothes, mugs, tools, apparel, and much more. Check it out during your lunch break: it's open from 11:30 to 1:30 each day of the school week, and is located next to POETS in the CPH foyer. New and exciting items are available each term, so come in often! If you have

any ideas for new items, please come and talk to us!

Another aspect of our job is managing capital expenditures. Each term our society works to expand and improve the services we offer by investing in items or services which will benefit the student body. Some examples include new microwaves for POETS, the scrolling marquee sign outside of the Engineering Society office, new audio equipment for our events, and new furniture for POETS. If you have any ideas about how we can make the Engineering Society better, please come see us!

We also make donations each term to various organizations and student teams in engineering and across campus. Groups just need to submit an application and make a brief presentation at our budget meeting (the fourth meeting of the term). Anyone is

welcome to submit an application, not just engineers, however keep in mind that the total donation amounts are limited by our termly budget, and the donation amount is decided and voted upon by all of the Engineering Society representatives.

Finally, if you're considering getting your Engineering Society fee refunded, we really encourage you to give us a chance first. Come out to POETS, check out the C&D shop, come to the Beginning of Term party, and check out the services in the Engineering Society office. If you aren't impressed with what you see, then talk to us! We welcome new ideas and truly want to be able to serve the engineering student body as effectively as possible.

To get in touch with us, email asoc_vpfin@engmail.uwaterloo.ca or bsoc_vpfin@engmail.uwaterloo.ca

Welcome from your Vice-Presidents Education

ERIC COUSINEAU
ALEX HOGEVEEN RUTTER
VICE-PRESIDENTS EDUCATION

Welcome first years! We are your Vice-Presidents Education, and we are very excited to meet you! Eric Cousineau is your Engineering Society (EngSoc) 'A' VP Education and Alex Hogeveen Rutter is your VP Education for EngSoc 'B'. For an explanation of the difference between society A and B, please see Eric's Article, "EngSoc: Services, Representation, and Events". Eric will be running the show this fall, and you'll meet Alex when he takes over in the Winter term. We are both in 3rd year electrical, so we've been around for a while and are eager to show you the reigns. VP Education is an important role that is responsible for 3 major things: Representation on established academic committees (co-op, course changes, etc.), improvement and maintenance of academic services, and acting as the student voice on academic issues brought to their attention. The third item changes term to term, but this term it most likely comprise of getting WatPD-Engineering up and running and drafting a student submission to Vision 2015: more on those in later articles.

As you can see, this position gives us students a voice in the university! We sit on the WatPD-Engineering Curriculum Committee to ensure student input is used to develop and improve the new program, we sit on the Senate Undergraduate Council where all undergrad

curriculum and policy changes go through before reaching senate, and we sit on the Coop Working Group which deals with all coop issues related to engineering. We sit on a few more committees so feel free to visit the executive section of our website to find out more (www.engsoc.ca).

Our academic services are raved about by students, especially the exam bank and résumé critiques, so that's what we'll talk about here. You can find our exam bank on our website, after you log in using your quest credentials (<http://engsoc.uwaterloo.ca/services/exam-bank>). On here you will find midterms and finals from previous

terms- most of the time they have professor solutions. This is a very popular resource! Our other popular service is résumé critiques, at which you can have your résumés critiqued by an upper year student. These students have been trained by CECS to help you turn your résumé into exactly what employers are looking for! Watch for advertising of this event, it should happen around week two of the fall term, so make sure you begin ironing out your résumés if you want to get that job with AMD, Acon, or RIM! Check out our website for a complete list of academic services!

During the first week and a bit of class,

your EngSoc A Executives will visit your class (during the pre-scheduled 30 minute time slot) to elect class representatives. Each class requires 2 EngSoc Reps, 5 Academic Reps, and 1 WEEF Rep. These representatives will carry your class' voice on each of these matters. Academic Reps are responsible for voicing the opinion of your class on academic issues at academic rep meetings (3 each term), bringing up any concerns of the class to the professor (talking too fast, not enough examples, etc...), and representing your class at department meetings. EngSoc Reps are responsible to attend EngSoc Meetings (First one on Sept. 22nd) and vote

for your class, as well as voice your class opinion on issues that are discussed. WEEF Reps are responsible to attend the 3 WEEF Funding Council meetings every term and vote for your class to decide the allocation of WEEF funding for the term.

We encourage you to approach us or any other executives and ask your questions. Our job is to represent you, and we can't do that if you don't tell us how you feel! Feel free to contact either of us through email at (Eric - asoc_vpedu@engmail.uwaterloo.ca, Alex - bsoc_vpedu@engmail.uwaterloo.ca), or just speak to us in person! Lastly, we wanted to leave you with one piece of advice: Technical knowledge will only get you so far: soft skills like clear communication, social aptitude, and leadership are what employers look for to distinguish you from the crowd! So get out of the dorm room and experience what the university has to offer!



Jess Stevenson

Engineering Society "B" Executives (Left to Right): Jon Warren, Peter Kelly, Kevin Ling, Scott Rankin, Alex Hogeveen Rutter, and Mina Labib.

Welcome from Your WEEF Directors

PRAVEEN ARICHANDRAN
GRAHAM STONEBRIDGE
WEEF DIRECTORS

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 boost the quality of engineering education is the Waterloo Engineering Endowment Foundation. WEEF, as it is commonly referred to, was created in 1990 by two Waterloo Engineering students. WEEF has a

large principal 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 principal is never removed to ensure WEEF will continue to give for years to come. Currently the fund has over \$9 million dollars and injects around \$200 000 into the faculty of engineering annually, making it the largest student-run endowment fund in the world.

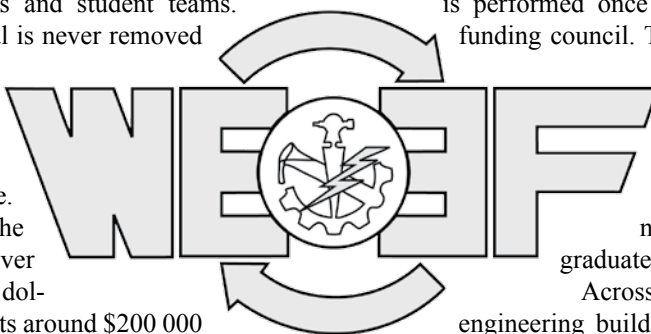
One of the unique parts of WEEF is that it gives students the power to decide where the money goes. The funding allocation is performed once a term by a funding council. The council is

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 across from DC. The grand opening is coming up on October 19th!

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



An Overview of Frosh Week Events

EPIC WEEK from Page 1

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 pumped and eager to participate in as much as you can! The introductory video is also played at this time and it will highlight Orientation Week and what it has to offer you. The theme of the week and the respective colour groups will be officially announced which marks the start of the week's competitions. EngFOC, the organizers and your leaders of the week also introduce themselves at this time. You definitely do not want to miss this event!



Chris Gilson

SERVICE SAFARI

This informative Safari tour highlights many of the places that you will frequent during your stay at the University. Get your safari gear ready, because this all inclusive package has exciting stops at the library, fitness centre, co-op building and more! There will be several fun challenges at every stop - who knows, there might even be surprise at the end!

VARIETY NIGHT

Variety Night is an event for all first year students to mingle and try some new events! There are many mini-events and major events to choose from including: hiphop, salsa, bonfire, comedian and hypnotist. Oh, and with a haunted house, you definitely can't go wrong!

BOARS, TOOLS, AND TIES

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. Be warned: not everything can be won with a hammer and saw; it'll take creativity, wit, ingenuity and plain-old smarts to win this competition!



Chris Gilson

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 complete several challenges as a team that represent the Principles of Engineering which are vital to what the Hardhat represents. Again, you definitely do not want to miss your opportunity to collect the coveted Yellow Hardhat!



Chris Gilson

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).



Chris Gilson

SINGLE AND SEXY

An original drama production of the University of Waterloo, this genuinely 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. Definitely one of the highlight events of the week!

Schedule of Events

	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:00am	Meet at HQ!					
9:30am	Meet the Dean (HQ)		Junkyard Wars & Student Teams Lunch (V1 Green)	JumpStart Friday (Arts Lecture)	Black & Gold Day (Warrior Field, CIF)	Joint Council and EngSOC Day
10:00am		ELPE (A-L) (PAC)				
10:30am		At Your Service (SLC)				
11:00am	Faculty Lunches	At Your Service (SLC)				
11:30am						
12:00pm		ELPE (M-Z) (PAC)				
12:30pm	Earn Your Hardhat (DWE Green, RCH Courtyard, RCH, Grad House Green)	At Your Service				
1:00pm			Eng 101 (ML) and Meet the Tool (Fed Hall)			
1:30pm						
2:00pm		International Orientation (RCH 101)				
2:30pm						
3:00pm	Aerial Photo (St. Paul's Green)		Single & Sexy or Service Safari (Various)			
3:30pm						
4:00pm	Single & Sexy or Service Safari (Various)					
4:30pm						
5:00pm						
5:30pm						
6:00pm						
6:30pm						
7:00pm						
7:30pm						
8:00pm						
8:30pm						
9:00pm						
9:30pm	Variety Night (UW Campus)	Boars, Tools, and Ties (SLC)	Monte Carlo (SLC)	Escape From the Zoo! (HQ)	Saturday Night Events - Toga (BMH Green), Game-A-Palooza (SLC), Saturday Night Live (Fed Hall), Greek's Got Talent (DC 1351), Walk of the Titans (Toga Entrance)	ComEng (Fed Hall)
10:00pm						
10:30pm						
11:00pm						
11:30pm						
12:00am						
12:30am						

Engineering

Cross Campus

If you are in **Software Engineering** your schedule looks slightly different to ensure you receive your Math identity as well! You will be attending the following events instead for the times outlined below:

- 'SE 101' on Tuesday (7th) at 10:15am followed by the SE Departmental Lunch
- 'Earn Your Tie' on Thursday (9th) at 2:30pm with Math!
- Math Desserts followed by Math Scavenger Hunt on Friday (10th) at 6:00pm

You will be part of the MissingNO team during Math Orientation!

STUDENT TEAMS LUNCH

Following 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 easy it is to take part. The corporate sponsors of the week are also present, several of which hire co-op students, making this is a great chance to see what you can offer as a co-op! To top it off, a delicious barbecue is served. Yum!

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 introduced to our 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.

MONTE CARLO

Come and show UW your classy side for Monte Carlo night! This is your chance to get dressed up and live the high life, with tons of awesome events including a dance, gourmet snacks, Acapella groups, jazz bands, magicians, acrobats and a fire show, mock gambling (Craps, Roulette, BlackJack, Poker, Wheel of Fortune, Slots), salsa and ballroom dance lessons, Tarot Card Reading, and much, much more!



Jeremy Wing



Jeremy Wing

ESCAPE FROM THE ZOO! (SCAVENGER HUNT):

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



Mike Seliske

BLACK & GOLD DAY

On Saturday you'll get the chance to dress up in black and gold to show your best Waterloo spirit. Come cheer on our men's and women's rugby teams and enjoy free lunch, tons of give-aways, and a giant carnival featuring GIANT inflatables, cotton candy, popcorn, snow cones, wide sports games, live DJ, and a dunk tank!



Jeremy Wing

SATURDAY NIGHT

The last official event of Frosh Week, and the best way to finish with a bang! The world's largest Toga party is being held on the BMH Green, but if that isn't your thing, there's also a comedy/improv show, crazy Talent Show, night tour of campus' secrets, and even video gaming. There's something for everyone!



Jeremy Wing

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 announced at this time so don't miss out!



Angelo Alaimo



Angelo Alaimo

Systems Design Engineering Nanotechnology Engineering

MYLES TAN
1T SYSTEMS DESIGN

What is Systems Design Engineering? Systems Design Engineering is a holistic and global approach...if you ask a SYDE student, the answer – if any – will be much simpler, but the main concept is to make things harder, better, faster, stronger. The 1A course load is a general introduction to main engineering concepts; it includes a graphics lab, calculus, physics, matrices, programming lecture and lab, and a SYDE intro course.

1B courses are an extension of what you've been working on in 1A. You'll be taking calc, physics, linear algebra, human factors, and a digital circuits lecture and lab. It's important to note that your physics and calculus course con-

tent will not match the rest of your engineering classmates; you'll be covering each other's 1A course material in 1B.

As a Stream 4 program, SYDE students will be applying for jobs within weeks of arriving and starting class. The flexibility of Systems Design Engineering allows for a wide range of job opportunities within engineering. Most jobs on Jobmine will have Systems Design listed in addition to a specific stream of engineering, don't be afraid to apply!

Due to the uniqueness of the program, Systems Design definitely has its own community within Waterloo Engineering, however at the end of the day they're working towards the same degree and iron ring as everyone else. Each SYDE student will eventually come up with their definition of what the program is; first year is a great place to start.

Management Engineering

AMANDA LEDUC
3B MANAGEMENT

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

You made a decision to enter ManEng because it looked interesting combining the analytical thinking skills from engineering with the financial skills from business and the programming and database skills from computer science. Those two things are true, but it's much more than that. This degree will provide you with necessary technical knowledge required to understand many types of problems from manufacturing to economics and will also teach you to analyze and optimize these problems as 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 covered in the ManEng curriculum ... so I guess that settles the issue!

I greatly enjoy being part of the pioneer Management Engineering class and look forward to my final two years here. Our classes have one of engineering's smallest class sizes and also has one of co-op's highest employment rates. We work everywhere from hospitals, banks, and even facebook, so finding a job is easy and always interesting! I hope you enjoy your time here in Waterloo Engineering and that you get as much as you can out of the ManEng program.

Chemical Engineering

ERIN MATHESON
2T CHEMICAL

Hey first year Chemicals! You're probably still wondering, 'what exactly does a Chemical Engineer do anyways?' Although the field as a whole has expanded greatly over the years, the core of Chemical Eng still revolves around finding a way to create a desired product, and then figuring out how to make it better!

In your 1A term four of your five courses will be the same as many other departments, such as civil, mechanical and environmental. These courses include calculus (MATH116), linear algebra (MATH115), physics (PHYS115), and chemistry (CHE102). These courses are a bit of review from stuff you learned in grade 12, with a little bit extra added on. They make for a good introduction to university-level courses, and teach you a lot of the basics that you need to know for your upcoming terms. Finally, you have your concepts

course (CHE100), which includes both a lecture and a lab component. Both the lecture and the lab will teach you the super-important basics of mass balances, energy balances, and engineering analysis that you'll use time and time again in your future terms. Key thing to remember with balances is energy and mass cannot be created nor destroyed – what goes in must come out!

Finally, incase your science friends in residence ask, the major difference between chemistry and chemical engineering – chemical engineering involves much more analysis and mathematics and the use of computers to aide in designing processes. Chemical engineers don't care so much about the core theory behind a process, but rather what it can do and how it can be used – we apply what the chemistry majors discover!

Remember to work hard and play hard, and the best of luck in first year!

ANJALI GOPAL
2A NANOTECHNOLOGY

You've gone through the admissions process, you've survived the terrifying anxiety of waiting and waiting (.. and waiting), and now you're finally in! I can't tell you if you're going to love or hate this program, but I can tell you this: the curriculum is challenging; it is very diverse; but if you are passionate about innovation and research, Nano can be a very rewarding, and very enriching experience.

In your first year, the majority of your courses are general math and science. Nevertheless, here are a few academic milestones to look out for: although 1A is mostly review, your NE100 course (Introduction to Nanotech) will give you a taste of what future Nano-oriented courses are going to be like. In 1B (when the game really begins), you will have your very first

lab sessions in your Organic Chemistry course. You will also start co-op hunting in 1B. Writing a few cover letters can go a long way to get you some interviews.

But don't let all this srs bzns kill your buzz, first years! As part of Nanotech, you will have access to amazing lab equipment and exciting research opportunities. Be sure to sign up for a few of the Waterloo Institute of Nanotechnology Engineering's ("WIN") seminars. WIN periodically invites professors from across the globe to talk about their groundbreaking research in the Nanotech field. In your second semester, you'll also be able to view our fourth year students' design projects.

To end off your welcome, I'd like to impart to you some of the wisdom my own class (2014, "Bottoms Up") discovered in our first year: first, that knocking is the best form of flattery. Second, that, in Nanotech, Nething is possible.

Software Engineering

MICHAEL CHANG
2A SOFTWARE

If you're the tl;dr type, remember: Sleep is good.

First, some house-keeping items:

As I write this, your class has two facebook groups. Join the active one, created by Elisa Lou. (Yay, Elisa!) Use Facebook to keep touch with classmates; official notices from the university are sent via email.

You have email accounts from student.cs and engmail; I also recommend also using mailservices (all .uwaterloo.ca). Officially, you should check each account every day; many students forward everything to one account. Gmail works with some caveats (you must send mail using Gmail's servers). When in doubt, Google Is Your Friend. (GIYF)

Spend time getting to know your fellow softies and new people outside of

Software (e.g. friends in residence). When you witness tribalism between Math and Engineering, remember it's meant to be good-natured competitive fun. Take a few chances this week – say hi to a pretty girl (or boy) you see in the foyer – everyone else is just as awkward and nervous as you are. Oh, and Charlie likes "the Wikipedia", and insists on attending the first lecture before buying texts for a class.

Software focuses on Doing It Right for Big Projects. For the robots in SE101, my advice: Friends do not always make good group members, and avoid excessive use of methods in NQC. Strive to find balance between work and fun. Whatever you do, whether its writing for *The Iron Warrior* or *mathNEWS*, helping a cute girl/guy in AHS or AFM, playing StarCraft, or setting up btrfs as root on Ubuntu 10.10, spend leisure time in Waterloo so you'll want to come back. Welcome to Waterloo – come say hi; I'd love to get to know you.

Geological Engineering

CAILIN HILLIER
3N GEOLOGICAL

Geological Engineering is one awesome, rock-loving family. The Geo class sizes are typically smaller, which definitely allows for you to get to know everyone very well. It's definitely a close nit group of students that will become your good friends over the course of your degree.

Geological Engineering itself is a combination of Earth Sciences and Civil Engineering. There are several different paths that this program can lead you. From subsurface structures like tunnelling or mine design in a more geotechnical side of thing, all of the way to river mechanics in the hydrogeology discipline, there is a wide variety to be discovered within this field.

One of the best parts of being in Geological Engineering are the many co-op opportunities that are available in this program. The chance to travel is definitely

available. Geo Eng students have travelled from Vancouver to Nova Scotia, and as far north as Labrador City and even internationally for their co-op terms.

But now something a bit more relevant, your 1A term. Look forward to taking Chemistry, Linear Algebra, Physics, Calculus and the Engineering Concepts course which will help to get you all onto the same page by the time 1B rolls around. This Engineering Concepts course will introduce you the basics of AutoCAD, surveying and writing technical reports, a very important skill for the rest of your university and professional career. Some of the best courses that you will encounter in your first few terms are Earth Engineering, Geochemistry, Structural Geology, and Stratigraphy and Earth History.

So welcome to Geological Engineering at the University of Waterloo, your home away from home for the next 5 years. Geo Rocks!

Environmental Engineering

LISA LIU
3N ENVIRONMENTAL

Hello new environmental engineering students and welcome to Waterloo.

You are going to enjoy your next five years here and make some invaluable friendships in the class. Starting from day one we have the luxury of learn-

ing in a small classroom environment. 1A is going to be hard just like everyone says, but there are resources all around to help you pass and excel in your academics. The WEEF TA's are always friendly and helpful, and the first year office will run study skill classes to teach everyone how to learn. Being stream 4, there is also the concern of

coop job searches. While the 1A job search is always a challenge, historically the enviros do not have too difficult a time finding coop jobs.

Take advantage of all the resources around you such as Career Services and the resume critique sessions ran every term. What is most important about this program, however, are the friends you

will make in the class who will stick by you through the rough patches in the next 5 years. Being in a small class gives every student an opportunity to form relationships with their classmates and perhaps make life-long friends. So go forth and experience all that this school and program will offer. After all, everybody else does ENVE us.

Computer Engineering

DOMINIC AQUILINA
1T COMPUTER

Computer Engineering is something special in the engineering faculty. We have a strong technical background in terms of electronics and circuitry, but we're also required to have a working knowledge of programming. In short, we do a little bit of everything, and quite frankly, we're pretty darn good at it. This means that the job opportunities are plentiful. Comps tend to have the widest selection of jobs and the highest employment rates of any of the engineering types. First year jobs mainly include programming or quality assurance positions at lesser-known companies, as we lack the technical skills required to perform the more complex engineering tasks that the larger companies require. In upper years, however, we have arguably some of the best job positions available. Google, Facebook, Research In Motion, AMD, Intel – all regular posters of positions for Computer Engineers. That's not to say that first years can't get these positions, but it's not very common,

as they have a large number of applicants and a very good reputation, meaning they only accept the best. There are plenty of people available to look over your resumes, so make sure you take advantage of these services!

It's not all about the jobs, though. Engineering is a lot of work, but we work hard, and we play harder. There's tons of stuff to get involved with, from Eng-Soc, to ResCouncil, etc, there's so much fun to be had that you're really missing out if you focus all on school! Personally, I was involved with ResCouncil, EngSoc, Intramurals, UW Gamers, Canada Day celebrations, Sigma Chi, and others. Busiest term of my life, but also more fun than I've ever had before. The more you give, the more you get, guys.

This is your time – make the most of it.

Electrical Engineering

ANGELO ALAIMO
3N ELECTRICAL

Welcome Electricals to the University of Waterloo and to the Department of Electrical and Computer Engineering (ECE)!

The computer engineers and you will be mixed together for your first year with both classes taking the same courses. You probably already know what courses you're taking in your first term, calculus, programming, and your circuits course are the most important.

Be sure to study them religiously! It'll help you in upper years. Don't fall behind! Classes move very quickly and midterms will seemingly come out of no where. If you fell like you're falling behind, get help! There are SO many resources to help you from WEEF TA's to study help sessions. As you likely already know, Waterloo

has a phenomenal co-op program. The job possibilities for Electricals are quite vast - from construction, power, and even software development. I implore you to look at all options presented to you on your 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 check out the resume critiques in the first few weeks of school!

Apart from your studies, it's a good idea to get involved with some extracurricular activities. Not only are they a great way to meet people, but extracurriculars allow you to practice your skills, and can make you more attractive to potential job recruiters. One can choose from many student teams such as the Midnight Sun, ASIC, UWAF, Formula SAE, and others which currently have escaped my memory. If said teams are not your thing, get involved with Engsoc, Iron Warrior, or just anything that interests you!

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

Mechanical Engineering

TIM BANDURA
3B MECHANICAL

Hey! Congrats on getting into Mech! It's a pretty broad program. Almost anything you look at has a mechanical engineer involved in its production.

First year is focused on the basics. Chemistry and physics will just be slight extensions on your high school material. Linear algebra and calculus will give you the basics you'll need later. Some of the material may seem dry or trivial (linear algebra can get really confusing) but don't forget it! A lot of material

will creep back in second and third year courses. Your first year concepts course (ME100) will take a lot of time, so budget accordingly. You can expect 4 or 5 assignments per week! ME100 will cover an introduction into graphics and the profession of engineering. A word of advice: Start your ME100 final report early! First year has a lot of assignments, but don't despair! Just keep at it and you will be fine.

Second and third year definitely get a lot more interesting! You cover courses such as advanced mechanics and dynamics (more interesting physics!), ther-

modynamics (entropy is a tricky beast, but the rest isn't bad), fluid mechanics (can be tricky, do the practice problems), and more calculus (you have five terms of it! But by 3A, it's actually cool). Fourth year will let you pick your own technical electives, so you can specialize in thermo or fluids or machine design if you wanted to. Mechs will see a "hell week" for midterms in their second and third years. It's actually quite deceptive. Although you have all your midterms in five days, you have no classes during that time. You'll count yourself lucky when your friends are

complaining about having class, midterms, assignments, and labs all at once!

A final couple words of advice: Please get out! You can't always keep studying or doing work! Try and get some activity to help keep you sane. Also, talk to your profs and WEEF TA's! They really do want you to succeed and the WEEF TA's were in your shoes a couple of years ago. They know a lot. And finally: C is the new A! Your grades might slip a little, but don't worry. The most important thing is that you're here enjoying your time while getting an education to prep you for an amazing career.

Mechatronics Engineering

DAVID LIU
4A MECHATRONICS

Mechatronics Engineering is the integration of many other engineering programs. Throughout your program, you'll be taking courses from Mechanical, Electrical, Computer and System Design Engineering. When I was in grade 12, I wanted to do Mech Eng. But after 4 years of Mechatronics, I know Electri-

cal is more interesting for me. For 4th year, you can choose from wide variety of technical elective courses that suits your interests. Also, you'll have great co-op job opportunities as you can almost apply to all engineering postings!

Mechatronics is 4-stream only program; this means that 2B Mechatronics Class and 4A Mechatronics Class will be on campus with you. If you want to find out more about the program,

get in touch with upper year students! My email is s14liu@uwaterloo.ca for any questions.

In terms of 1A courses, you will be taking linear algebra, calculus, chemistry, programming and a concept course. Very similar setup with other programs. One thing is that if you're new to programming (C++), prepare to spend a lot time on Gene 121 - programming course. I know some people switched

out of Mechatronics because of the programming courses, but it's an essential skill. Especially, considering a large portion of coops are programming based, so now or never!

Keep in mind that these are the people that you will spend your next 4+ years with, so start getting to know your classmates by first names. MTE 100 concept courses are great place to form these connections!

Civil Engineering

KRISTEN ROBERTS
3B CIVIL

Lesson one: Civils always win. As you sit in your first class you will be surrounded by 100 fellow peers. Out of them, there will be bunch who played with lego. Many will be anxious, some excited and a few already stressed.

What does your future hold? First term is about "levelling the playing field". It provides the academic foundation for later courses. Some of you may have an easier transition as you review concepts learned in high school. The joy of being on 8-stream is that you will return in the winter. Following that is your first co-op term. Co-op is a great chance to put into practice what you've learned and it helps you figure out your specialty.

As you progress, there are numerous specializations to take advantage of. If you like playing with water, there are fluids and hydraulics courses waiting. Does LRT get your heart a-fluttering? Then

you have transportation planning to look forward to. Or maybe you are interested in the structural side to civil. Whatever you're into, there's something for you.

Above all, make friends and have fun. Here are some key tips for success:

1) Don't lose sleep over the PHYS 115 midterm.

2) The CIVE 125 course is quite interesting. Listen to Bob and go to your Weef TA's. Also bring sunblock and water.

3) Get a good understanding of linear algebra (concepts will continue to pop up)

4) Stay active, eat healthy, and get sleep

5) Meet upper year Civils, they can prove to be a great resource

6) Get involved! Whether part of a student design team (shameless plug for GNCTR), a sports team, EngSoc, IW or rez, it is key to balance work and play.

Best of luck and have an awesome frosh week!

Architecture

JAMEELA DERRICK
2B ARCHITECTURE

At the University of Waterloo School of Architecture, you'll have a university experience unlike any other. What's that? There's no campus, no residence, and no meal plan! Fear not dear first year, what we lack in the number of buildings and students (less than 300, including Masters student), is more than made up for in community and quality of facilities.

Though our "campus" consists of a single, three-storey, red brick building, it's been stuffed with just about everything an architect-to-be needs: two lecture halls, workshop with digital fabrication lab, photography dark room, audio/visual lab, the Musagetes Architecture library, photo studio, Mac Lab, loft, and of course studio to name a few of the spaces you will be inhabiting daily.

The compact nature of the school

and small student body lead to the intermingling of not only all undergraduate students, but Masters student's as well. After the first couple weeks, don't be surprised if you know the names and faces of every person in the building, from the office administrators, to the library helpers, and the custodial staff, all of whom are friendly, helpful and accommodating.

Outside of school, Cambridge has a lot to offer: eat lunch on the patio of your new favourite bistro, skate on the year-round ice at the Cambridge centre before catching a flick, or canoe/kayak down the Grand River. And don't forget that main campus is just a free bus ride away, so get involved with intramural sports, clubs and Engineering social events like Semi-Formal, TalEng, Bus Push, Curling and EngPlay.

You've got the best of both worlds! So make sure you seize every opportunity to make an impression, a friend, and most importantly a memory.

What happens when a UW engineer and a UW math dropout start a company together?



a thinking ape

We'll be telling our story about how two friends from UW ended up in Silicon Valley, raised a bunch of money, started a company and grew our revenues from zero to over a million dollars in under a year – and had a ton of fun doing it. Come meet the founders and learn about our exciting job opportunities for UW co-op students and soon-to-be grads. Free food and drinks will be provided. :)

Monday, September 20
5pm to 6:30pm
Tatham Center, Room 2218

athinkingape.com/uwaterloo

The History of Orientation Week at UW

ROSS RICUPERO
CIVIL '09

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.

In '64, '65, and '66 even more traditions had started to form. First year students from Arts, Science and Engineering (the only faculties at UW at the time) were all awarded 'beanies' or caps at the beginning of (the now called) Orientation and the cheer of "I'm a dirty rotten dead

horse and I stink!" was used throughout the week, accompanied by students falling to the ground, laying on their back and sticking their arms and legs in the air. The Frosh Queen competition, in which 'Freshettes', or female first-year students, competed to be elected to the position complete with sash and crown, became a major event. The penny-drive also became Slave Day, where first-year students would be sold to members of the community to help them with whatever they choose, or for charity purposes.

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

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

It was during the late 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

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

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

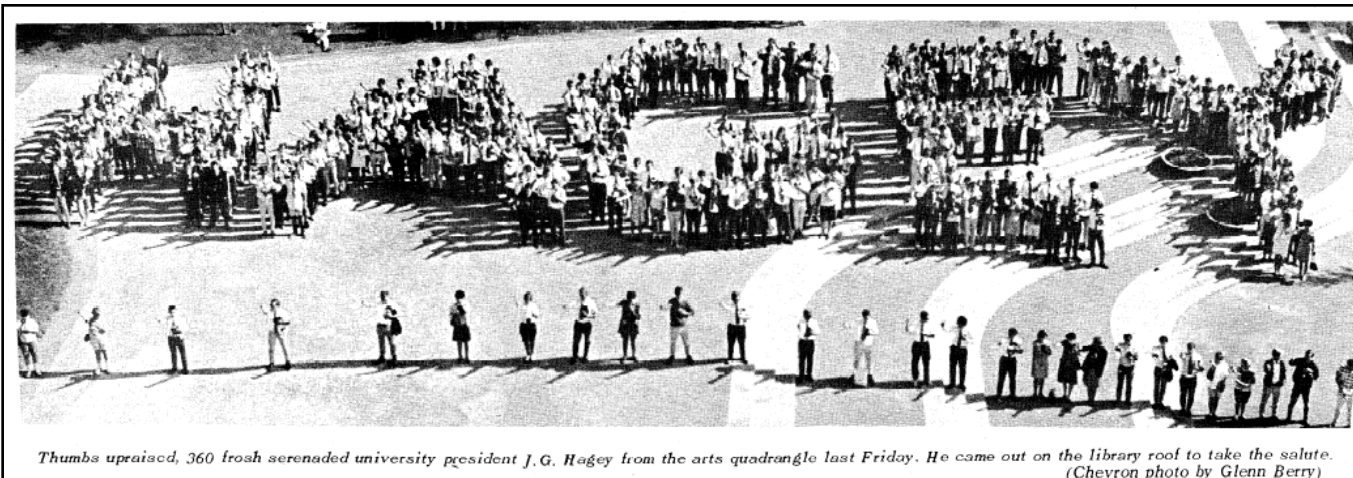
Orientation Week we have now, which many believe to be better than ever before.

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.



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 Barry)

The Chevron- Glenn Barry

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.

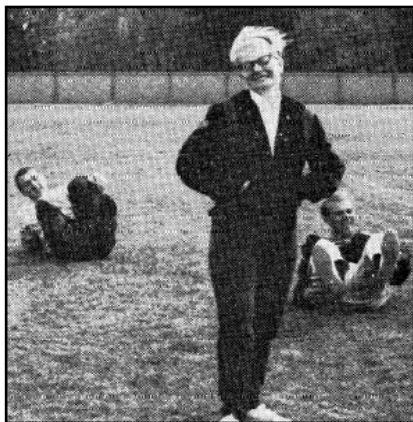
It wasn't until 1978, when the LLBO took dispute with the University's 'beer tents' that programming needed to be reduced and concerts rethought. The LLBO refused to license the outdoor tents that were part of Orientation Week in years past, reducing the amount of money that the Orientation program had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

tion 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



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.



About Engineering Student Teams

Read up on some of the student teams that you can be a part of at Waterloo!

Off-Road Mini Baja

ROB STERLING
W.O.M.B.A.T

The Waterloo Off-Road Mini Baja Team is a group of Waterloo Engineering Students who design and build an off-road vehicle to race in SAE sanctioned Mini-Baja events. Each year the team must design, build, test, promote, and race a small-scale, off-road prototype vehicle.

The SAE (Society of Automotive Engineers) Baja competition, held annually, is two days of events that put the team's vehicle to the test.



Examples of competition events are acceleration, skid pull, hill climb, suspension & traction, manoeuvrability, and water manoeuvrability events. The main event in the competition is the 4 hour endurance race where all teams race head-to-head on a single track.

Students from 1st to 4th year are encouraged to become involved with the team by assisting with manufacturing and vehicle testing. The team can be contacted by email at: baja@engmail.uwaterloo.ca or come visit us in our new shop in E5.

Concrete Toboggan

KRISTEN ROBERTS
3B CIVIL

Do you want to get involved in an on-campus student design team? Do you want to travel across Canada to compete against other engineering students? Does the idea of travelling 70 km/hr "safely" down a hill appeal to you? Are you looking for another way to get involved on campus? Or are you looking for a 4th year project? Yes? Well then the Concrete Toboggan team is for you!

A little background: Founded in 1974, the Great Northern Concrete Toboggan Race (GNCTR) is hosted once a year in the winter term by Canadian universities. It provides the opportunity for engineering students to become involved in the design and construction of a 300lb concrete sled. Each team is judged for their technical exhibitions, innovative design, spirit and the performance of the toboggan.

Due to the division of streams, at Waterloo there are always two teams in the development and planning stage

(one on campus and one on their co-op term). To provide distinction team names 'A' and 'B' are used and correspond with the Engineering Society titles. This fall the GNCTR 'A' team will on campus and will be competing in Ottawa in 2012. In January 2011, the University of Waterloo GNCTR 'B' team, which will on campus in the Winter 2011 term, will be travelling to Edmonton.

One common misconception that this team is just for Civils who like concrete a little too much. This is not true. UW's GNCTR teams are cross-campus student teams that rely on participation from students of all disciplines.

If you would like to become involved in this student team feel free to come out to our meetings, join the mailing list at <http://groups.google.ca/group/uw-gnctr-2012> or talk to one of the members cooking

burgers beside CPH patio every week. Throughout the term we will be posting updates and meeting reminders, so don't forget to keep an eye out for them on the bulletin boards in the engineering quad.



The Iron Warrior

ANGELO ALAIMO
EDITOR-IN-CHIEF, SPRING 2010

You're holding a copy of *The Iron Warrior* in your hands right now, possibly wondering to yourself, "How do I get involved with this newspaper?"

Good news! We're always looking for new people to get involved with *The Iron Warrior*. Better yet, it's easy!

Ever wanted to write articles and have them read by an audience? We publish 5 times a term and are always looking for articles on just about anything!

Are you a budding photographer? Per-

fect! We'd love to have you come out and take pictures for us when we need a story covered.

Perhaps you'd love to draw comics or even help layout the issue on production weekend. You can do that too!

We have a variety of positions available for anybody and anyone to get involved with. The Iron Warrior is great for boosting your writing skills and it looks great on your resume too. To get involved, come out to our meetings every Monday at 5:30 PM in E2-2349A, we're super friendly! If you just want to submit content, send us an email at iwarrior@engmail.uwaterloo.ca.

UW Rocketry Team

WILLIAM HANCHAREK
TEAM MEMBER

The UW Rocketry team is a subteam of the University of Waterloo Space Society, and one of Waterloo's newest design teams. Started by three mechanical engineers one year ago, the UW Rocketry team now has members from a variety of disciplines, including computer and electrical engineers for design of the rocket control systems, chemical engineers for propulsion, and mechatronics and mechanical engineers for design of the rocket structure. Of course all disciplines are needed, and every extra brain is a huge help so don't

hesitate to drop by one of our meetings! We are currently looking for people interested in joining the Business team, Structural Team, Propulsion team, and the Build team.

If you join, you'll be helping us to achieve our current goal, which is to win the Intercollegiate Rocket Engineering Competition in Utah which takes place every June. The goal of the competition is to make a rocket with a 10lb payload and send it to an altitude of exactly 10,000ft.

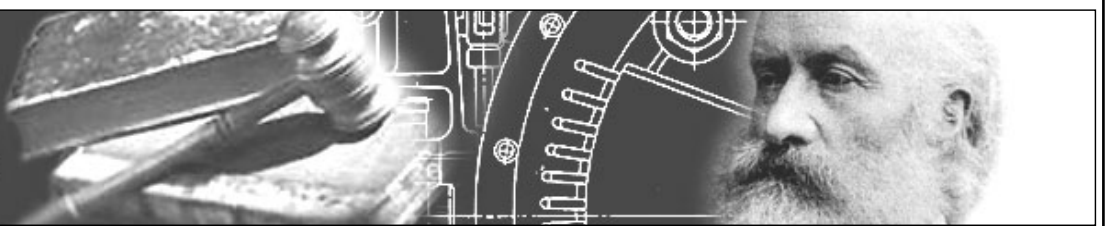
If you're interested in getting involved, then just email us at uwrocketry@gmail.com, or visit our website at sites.google.com/site/uwrocketry/home



Sandford Fleming Foundation

Professionalism.
Leadership.
Communication.

There's more to an engineering education than engineering.



Available Awards, Grants, and Scholarships

The Sandford Fleming Foundation is a not-for-profit organization associated with the Faculty of Engineering at Waterloo. Its primary objective is to foster and create an enriched academic environment for co-operative engineering students.

Karen Mark Scholaship - \$1000

The Scholarship is awarded annually to a female third-year undergraduate Engineering student based on excellent academic achievement and demonstrated involvement in and contribution to student life at the University of Waterloo. The award is funded from a special endowment and the winner is selected from recommendations submitted by the departments.

SFF Memorial Leadership Award - \$1000

The Leadership Award is granted to an intermediate-level undergraduate student in the Faculty of Engineering who has demonstrated outstanding contributions to the Faculty in the promotion of extra-curricular activities, including, but not limited to: Intramural Athletics, promotion of Engineering Society and Sandford Fleming Foundation events, competitions, etc., and for the support of associations, both on and off campus.

Undergraduate Research Assistant Award - \$300

This award supports undergraduate research assistantships (URAs) that are co-supervised by professors in the Faculty of Engineering and professors in other Faculties. This award is intended to enable URA opportunities in situations where financial support may otherwise not be available.

Undergraduate Co-Op Award - \$1000

This award supports academic co-op placements that are co-supervised by professors in the Faculty of Engineering and professors in other Faculties. This award is intended to enable interdisciplinary co-operative education opportunities in situations where financial support may otherwise not be available.

Work-Term-Report Award for Environmental Design and Innovation- \$300

Each year an award of \$300 is given for an outstanding work report that best exemplifies environmental design and innovation. The award is available to Engineering students in all disciplines.

Default Awards for Work-Term Reports - \$300

Awards of \$200 each are given to undergraduate students in Electrical and/or Computer Engineering for the best work-term reports in their classes. Up to four Awards are given each year.

SFF Work-Term-Report Awards - \$300

A number of Awards of \$300 each are made to second, third and fourth year students in those classes for which industrially sponsored Awards do not exist.

John Fisher Leadership Award - \$1500

The John Fisher Award for Leadership is made to a student graduating from the undergraduate program who has shown outstanding leadership throughout his or her academic career in activities that relate to engineering education.

Undergraduate Travel Grants

Conference Presentations - Max \$1000
Conference Registrations - Max \$100
Technical Projects - Max \$1000 Per Term / \$100 Per Individual
Non Academic Professional Conferences - Max \$100 Per Person

SFF Student Exchange Scholarships - \$800

This award supports undergraduate research assistantships (URAs) that are co-supervised by professors in the Faculty of Engineering and professors in other Faculties. This award is intended to enable URA opportunities in situations where financial support may otherwise not be available.

Dr. F. Hecker Exchange Scholarships - \$1000

This award is given to an outstanding undergraduate engineering student at the University of Waterloo who is participating in one of the Faculty's student exchange programs in the European theatre.

For more awards, information, and how to apply for the above awards, grants, and scholarships, please visit the SFF website listed below.

E2-3336, Extension 84008, sff@engmail.uwaterloo.ca, www.eng.uwaterloo.ca/~sff

Formula SAE

ANDRE LO
3N COMPUTER

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 a brand new, small formula style, open-wheeled race car every year.

Every year, members of the team design and manufacture a race car from scratch for the Formula SAE competition. 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 automo-



tive 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 E5 for a chance to talk to current team members in person. For more details, visit: <http://fsae.uwaterloo.ca/>.

Chemical Engineering Student Society

ERIK GASPAR
PRESIDENT, CESS

CoffeeHouse, Meet the Profs, Lunch and Learn, T-Shirts, BBQs, Chem Eng Related Events. All your Chem Eng (and can't forget Nano either) needs are looked after by UWCESS (University of Waterloo Chemical Engineering Student Society). This

society is very approachable, with many positions available to everyone. Don't like what we're doing or see somewhere we can improve? Become a director and help make your Chem/Nano years more enjoyable! No reasonable student or project will be turned down! Contact us at uwcess@gmail.com, try to find us on Facebook, or visit our office (DWE 2514) during lunch hours.

UW Robotics Team

CRAIG MACKENZIE
TEAM MEMBER

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 focuses on autonomous navigation, with projects ranging from an autonomous sailboat to a mars rover (with UW Space Soc).

First year members are also invited to participate in our Mini-sumo Competition.



Teams of 3 or 4 will work together to build a small robot capable of detecting other robots and pushing them out of a ring. No prior experience is required, we'll give you everything you need (including lots of help) to get started with basic electronics, software and mechanical design.

So how do you get started? Our lab has recently relocated to the second floor of the E5 Student Design Centre. Feel free to drop by, and keep your eyes open for posters advertising our recruitment meeting. Check out our website for more information (robotics.uwaterloo.ca) and we look forward to meeting you all!

Clean Snowmobile Team

PETER MCCLURE
4A MECHANICAL

The UW Clean Snowmobile Team began in 2000, and competes every March in the SAE Clean Snowmobile Challenge, typically held in Northern Michigan.

The team focuses on designing and building a snowmobile that has lower fuel emissions, higher efficiency, and quieter operation than a stock snowmobile, without sacrificing speed or agility.

The team is currently building a sled for the 2011 competition, which uses a lightweight chas-



sis paired with a high output 4 stroke engine.

Becoming a member of the team provides an opportunity to learn more about engine systems, emission controls, and chassis optimization, and gives you a chance to work hands-on and apply your skills.

We're currently looking for innovative and driven students from all disciplines for a number of technical and administrative roles. We'll be holding an orientation meeting later in September, so if you're interested in getting involved, check us out at <http://sled.uwaterloo.ca>, or send me an email at pmcclure@uwaterloo.ca.

University of Waterloo Alternative Fuels Team

ERIC MALLIA
UWAFT

At the University of Waterloo's Alternative Fuels Team (UWAFT), we're designing, building, and marketing the hydrogen vehicles of the future. We have partnered with General Motors (GM), the U.S. Department of Energy (DOE), Natural Resources Canada (NRCAN) and other notable sponsors across North America with the dream of building the next EcoCAR. Not only does this challenge bring us in contact with industry leaders who want to see a greener tomorrow, it also acts as a framework for interacting with the general public. For this North Ameri-



can collegiate competition, we have chosen to re-engineer our GM-donated vehicle into a hydrogen fuel-cell plug-in hybrid electric vehicle that will have zero tail-pipe emissions. We use our work on this vehicle to educate students on-campus and in local elementary and high schools about green automotive technology. We also get to work with cutting-edge solutions from various competition sponsors in order to build and test our vehicle. We are entering the third year (of three) in the EcoCAR competition. Look out for us on campus or feel free to stop by the UWAFT garage in the new Student Design Centre (SDC) in Engineering 5.

Sustainable Technology Education Project

LAWRENCE YEE
STEP

Calling engineers of all stripes! The Sustainable Technology Education Project (STEP) designs, builds, and demonstrates the practicality of renewable energy technologies and wants first years to join and show their ingenuity – and okay, maybe save the world in the process!

STEP's most popular exhibit is the bike generator, which demonstrates how much pedaling generates electricity that is usually taken for granted! Then there is the fully-operational photovoltaic installation on Fed Hall that collects solar energy. Ongoing projects include a solar thermal project to heat the water in the VI Residences



and a portable solar cooker.

Besides engineering work, STEP organizes fun events including the Green Bomber night, the R4 Fashion show, film screenings, guest speakers, and the annual Sustainability Bash. This year the Bash is on September 30th at the Bomber and a screening of the e2 design documentary will begin on Wednesday October 6th at 7 PM in the SLC Great Hall.

Other educational programs include the IEEE Frosh Wind Turbine Competition, tours of wind farms, and high school workshops through Waterloo Unlimited. Visit www.step.uwaterloo.ca or email step@feds.ca to get involved! STEP is looking for enthusiastic, semi-skilled, and totally-awesome volunteers!

Waterloo Space Society

JASON HOFGARTNER
WSS

The Waterloo Space Society (WSS) is a campus club that gives students interested in all aspects of aerospace a chance to come together to share their ideas. We host many events throughout the year including distinguished speakers, movie nights, astronomy observing, facility tours, sky-diving, camping and lots more! We also have six sub-teams that focus on specific space related activities.

1) Mars Rover Team: The team designs and builds our Mars Rover and competes at the University Rover Challenge in Utah.

2) Waterloo Astronaut Training Corp (WATC): WATC members train to develop the knowledge, skills and abilities to become astronauts.

3) Stargazers: Team members use

our own telescope to observe and bring the night sky experience to the student body.

4) Waterloo Rocketry Team (WRT): The team is working on our rocket to compete in the Intercollegiate Rocket Engineering Competition held in Utah.

5) WatSat: The WatSat team is working to design and build a micro satellite to compete in the Canadian Satellite Design Challenge.

6) University of Waterloo Space Transport Advanced Research Team (UWSTART): The team is building a pro-type space elevator as part of the Spaceward Foundation's Climber Competition.

WSS brings together talented young students and we would be glad to have you on our team. For more information please visit us at www.spacesoc.uwaterloo.ca.

Engineering Society Events, Directorships, and Services

Messages from this term's society directors

Know What's Up and When!

MIKE MCCAULEY
SPEAKER

Want to make sure you always know about all the amazing student events and activities going on in engineering throughout the term? Make sure you make yourself a regular at Engineering Society meetings and you will be the first to know! You will hear updates from the EngSoc Executive, presentations on what's happening in Engineering includ-

Enginuity

KYLE POHL
ENGINUITY DIRECTORS

Need a diversion at lunchtime to kill some time between classes?

Love building random things from objects we found lying around the place?

Want P**5 points for your class? (Yes you do!)

Then come on down to ENGINUITY, held roughly once a month where we challenge you to build strange and fantastic gizmos to complete wild and exotic scenarios!

Creativity and flair will score big points. Our opinion? It ALWAYS needs more zhazz! Put on your thinking caps, these aren't your grandma's challenges, these are TURBO challenges!

Jokes aside, we have some amazing challenges for you to take part in. Hope to see you exercising BOTH hemispheres with us at ENGINUITY! Cheers,

Derek Thompson and Kyle Pohl

EngSoc Charities!

LISA BELBECK
CHARITIES DIRECTOR

Hello First years and A-Soc! The charity directors for this term have A LOT of events planned which we would like to share with you! Have you ever thought about how YOU could help other children across the world have an opportunity to go to school! Well this year Charities is donating all of their raised funds to Free the Children, to help build a school in India! We are taking over B-Soc's charity to do our best and have Waterloo Engineering raise as much money as we can to help Free the Children build a school in India! We will be running the traditional pancake breakfast once a week, mm delicious! We will also be running a FLOAT day, that's super delicious! I know how much you boys love growing your mustaches, well then Movember will be perfect for you! Movember is a whole month of people growing mustaches to raise money for prostate cancer. This term we are bringing in something new called "Halloween for Hunger", where volunteers will go out early Halloween night to collect canned goods for Waterloo's local food bank! Lastly, we will be running a charity hockey tournament against University of Ontario Institute of Technology! Keep your eyes and ears open in September so you can add

ing the latest on academic and co-op issues, how to get involved and have fun while in school, and most importantly, announcements about upcoming events.

The first EngSoc meeting will be on **September 22 at 5:30pm in CPH 3607**. Be sure to be there as we start off the term! Lastly, I'm Mike and I am the Speaker for this term so I will be running the meetings throughout the term. Enjoy the first couple weeks of class and I hope to see you at meeting 1!!

P**5 Points

ALROY ALMEIDA
P**5 DIRECTOR

Throughout the week, you will be exposed to engineering culture. All the traditions, songs, studying and parties are what define us as proud engineering students.

P**5 points (pronounced "P to the Fifth" or "P to the Five") are awarded to individuals/classes that demonstrate true engineering spirit: involvement, solidarity and giving back. This can include participating in EngSoc events or contests, planning your own class parties, running charity fundraisers, volunteering, showing school spirit and so much more. At the end of the term, the class that has the greatest number of points gets not only bragging rights, but also a CASH prize. More information, including the full list of ways to earn points and details on how to participate, can be found at www.engsoc.uwaterloo.ca/classes/p5 there you have it. Show us what you've got, Frosh. Good Luck!

all our events to your calendar!
Peace and Love,
Your Charity Directors

On Exchange at UW?

KATE HEYMANS
EXCHANGE DIRECTOR

Showing up in a new place is never easy but when you've got to deal with a new country and a University culture you barely know, then it's even harder. Never mind all those challenges, the exchange director (that's me!) is there to help exchange students get used to Canadian culture and to encourage you to get involved with Eng-

Soc. I'm basically here to get you started and to help you have a great time at UW so anytime you have a question feel free to send me an email at cheymans@uwaterloo.ca. For all you locals looking to go a bit further abroad, I'm also in charge of working with the Exchange Office to publicize opportunities for UW students who want to discover someplace new. Be sure to look for events throughout the term and feel free to invite your classmates and friends.

Music Directorship

ALESSIA DANELON
MUSIC DIRECTOR

Your Music directors this term are Alessia Danelon, Griff Ferguson and Rohit John. The music directorship plans and facilitates events in Engineering that encourages music appreciation. This includes, but is not limited to hosting Open Mic Fridays, Coffee Houses, Band Wars and even Rock

Band Competitions on a term by term basis. Check out the EngSoc event board, and the bulletin boards around campus for the dates of each event. If you have an idea for a music event, send the directors an email at adanelon@uwaterloo.ca, or try and catch them in the hallway, POETS or the C&D, as they'll all be happy to try and bring your musical idea to life!

Shadow Day


SUCHARITA DATTA
SHADOW DAY DIRECTOR

Hey all, hope you've hit the reset buttons for the upcoming term and are ready to get involved! One day in the middle of this fall term you may suddenly notice a few new faces in your classes. Fear not, they are not hallucinations brought on by the endless hours of studying you will no doubt be doing. They are your Shadows, who plan on following your class around to experience a day-in-the-life of an engineering student! To make this day the best possible for these hopeful students, we will need some guides who'll show them around. Keep your ears peeled for any announcements and sign up! In the meantime, look around for things that you would have been amazed by and would have liked to know about back in high school. We're sure you would have no shortage of things to show your shadows!

Genius Bowl

NIZAR HASAN
GENIUS BOWL DIRECTOR

Are you ready to lead your team to victory? Are you ready to show off your powerful knowledge of random facts? Do you have zero general knowledge? If the answer yes to any of those, then PERFECT! C'mon out and have a great time with some classmates, friends or even as a free agent. Genius Bowl is a Jeopardy-style event where you compete as a team. There will be categories such as animals, engineering, and movies! There are also many surprises along the night (especially delicious ones). OH and if you don't know the answer to something, a funny response is even better. See you beautiful people soon!



You made it into Waterloo's fabulous co-op program, but didn't realize that job applications start in a few weeks...

Does that make you feel NERVOUS?!

Luckily, EngSoc will be running Resume Critique Sessions on

Tuesday, Sept 21st, 2010
Thursday, Sept 23rd, 2010

Room and time info available soon



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Waterloo Cases in Design Engineering

AMRITA YASIN
4A CHEMICAL

Hi 2015! I bet you came to Waterloo Engineering because designing fascinates you – whether it be buildings, bridges, refineries or automobiles. As professional engineers, designing by trial and error and playing with parts and drawings, won't suffice. Engineers need to deal with uncertainty and complexity, and strategies,

procedures and guidelines exist that you as engineers are expected to know about as you go on your co-op terms.

In order to help teach the design process and illustrate the applicability of a wide range of engineering concepts, Waterloo Cases in Design Engineering (WCDE) has been established to create engineering design case studies. These case studies are based on situations where engineering principles and design were used to

solve real problems. Some of you will get to see the Engineers Without Borders Rainwater Harvesting, Hydro Quebec or EcoCAR cases in 1A, all developed by WCDE.

Engineering students write work term reports during their co-op terms. WCDE uses these reports to write case studies to show students the variety of design challenges that are faced in industry and academia. These case studies when im-

plemented in classes give you the opportunity to work on these problems to better equip yourself for future challenges.

It is something that you can contribute to by submitting your work term reports in the future. If your report gets converted you can put the case study as a publication on your resume to impress the employers! Visit <http://design.uwaterloo.ca/> for more information

Become a Class Representative

ANISH BHUTANI
ACADEMIC REP ADVISOR

Students coming to Waterloo were quite active at high school whether it was playing on a sports team, competing with student teams, or being involved with clubs or student government. The following will focus on how you can represent your class to the engineering body.

There are three types of Class Reps, Engineering Society, Academic, and Waterloo Engineering Endowment Foundation (WEEF) Representatives.

Engineering Society Representatives: also known as the EngSoc Reps - these people (2-3 per class) attend bi-weekly meetings with other EngSoc Reps and the EngSoc Executives to discuss and vote on motions and changes to the Constitution and Policy Manual. They will be the ones to inform the rest of their class events, initiatives, services, and student issues.

Academic Representative: The job of the Academic Reps is to work with their department and the Faculty on educational issues. These reps (2 – 6 depending on class size) are the go-to people whenever there is an issue in classes. They will meet with their professors and department (or first year of-

fice) anywhere between two to four times during the term to discuss class dynamics. They will also attend meetings with the EngSoc VP Education to discuss tasks that he/she is working on at the time, such as curriculum changes, Waterloo Professional Development for Engineering (WatPD), or Co-op.

WEEF: The WEEF representative, is typically a single person who represents the class when it comes to distributing the term's \$65,000-\$85,000 WEEF money. All classes come together to decide how that money should be split up.

While the above three: EngSoc Rep, Academic Rep, and WEEF Rep, will be found in every class, any number of other reps are also allowed. Other types of class reps include Social Reps who try to organize events to bring the class closer together. Some classes also have P**5 Reps who try to advertise the class competitions EngSoc holds, in which prize money for the class is given at the end of each term for the class that collects the most points.

If you want to meet more people in your class and in other classes, becoming a class rep is a great way to do so. Engineering Society 'A' Executive will be around to run elections in the first couple of weeks to help run the first set of elections.

Women in Engineering

CARA KENNEDY
JESSICA STEVENSON
WOMEN IN ENGINEERING

WiE is the Women in Engineering Committee on campus who has a mission of keeping the UW faculty, staff, alumni and students aware of the WiE issues on campus, nationally and internationally. They also strive to give women of all ages the opportunity to choose engineering as a career and encourage and promote an environment where women can pursue scientific work and study. As undergrads who have been involved with WiE for a couple of years we want WiE to be available to any students facing mistreatment in the educational community. We believe it is important that all students of any race, creed or gender feel safe and at home at our campus in Waterloo.

One of the grad student members, Erika Murray, mentioned that "The WiE committee has been a great personal support network for me throughout my undergraduate and graduate degrees at UW! There have been many events, such as female industry speakers, social events with female faculty and student lunches which provided great opportunities to network and unite with WiE students at all levels within the university.

I strongly encourage all women enrolled in engineering to network and become involved!"

Some upcoming events being put on by WiE include a welcome lunch for female engineering students on September 23, 2010. This will be a great opportunity to meet some upper year students, graduate students, faculty and fellow female undergraduate students in the 'fishbowl' at the Davis Centre on campus. If you are looking to volunteer you may be interested in GoEngGirl, which is an event for students from grade 7 to 10 to learn more about the sciences and engineering. Another opportunity to get involved is the National Conference for Women in Engineering, which is a 3 day conference that discusses past and present issues that arise with respect to gender equality in the field of engineering. WiE is a resource for all engineering students and we encourage you to talk to any of the directors to find out more!

If you are interested in networking or learning more about the WiE community and what we do please check out www.wie.uwaterloo.ca. You can also find out about events and activities through the mailing list, which you can join by visiting here:

<http://engmail.uwaterloo.ca/mailman/listinfo>

Engineering Society Academic Services

SASHA AVRELINE
CHEMICAL ENGINEERING

Hello everyone, my name is Sasha and I was the VP Education for Engineering Society "B" before completing 4B this past winter and will be interacting with you in the upcoming Fall term. 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 find 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/exam-bank>, 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 ex-

amples 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!



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POETS - The Engineering Student Lounge

GRIFF FERGUSON
POETS MANAGER

Welcome plummers to UW Engineering! We are your POETS managers for the fall term. POETS is the engineering student lounge. It is located in Carl Pollack Hall first floor foyer. POETS is great for a number of reasons – we have a Foosball table, pool table, patio, comfortable chairs, bar stools, microwaves, toasters, and movies and television shows. Also, POETS provides a relaxed and inclusive atmosphere in addition to having a great location. You can borrow games and puzzles from the Engineering Society office and bring them to POETS! We are running trivia challenges during the Gradcomm pub-crawls, which are slated to happen four times this term and start in POETS!

POETS is also host to several events throughout the term including theme movie and television nights, jazz band and choir practices, coffee houses, and some of the best public parties run by our student society, OT's. There are three OT's run every term – BOT's, MOT's, and EOT's – that stand for Begin-



ning, Middle, and End of Term parties. We are licensed to serve during these events, which are also All-ages. Also, during these events you will become more acquainted with our engineering mascot "The Tool" and it loves your adoration. BOT is happening on Friday, September 17th and provides an amazing opportunity to schmooze with the upper years. More details regarding BOT will come later but let's just say that you should bring your po-po-po-poker face ;). POETS is open from 8:30am to 6pm on weekdays, but if you would like to host an event you can book your date and time at Engineering Society office.

Now it's time for the bad news. Our beloved POETS is closing in November for refurbishing. We are working very hard to find alternative student space so that students can enjoy the comfortable atmosphere that POETS provides for the remainder of the term.

If you have any questions, comments, or ideas on how the POETS managers can improve services please contact us! Our personal e-mails are available on the Engineering Society website, but you can also contact us at F10poetsmanagers@gmail.com.

Engineering Jazz Band

ERIN MATHESON
B-SOC CONDUCTOR

Hey shiny and new class of 2015!

Did you play an instrument in a stage band during high school? Do you play an instrument and always wanted to join a stage band? Well are you ever in luck, because UW Engineering has its very own Jazz Band, called With Respect to Time (WRTT). There are lots of undergraduate Engineering students just like yourself who love music and couldn't go through school without playing at all, which is why WRTT was formed in the first place just over five years ago! Haven't played all summer? Not to worry, happens to the best of us! In fact, WRTT has never held auditions in its five year history, it's just a friendly open environment for people to come out and play some sweet music together.

That being said, there is a small commitment associated with the band; we rehearse for about two hours every Sunday in the Student Life Centre, and section leaders hold weekly sectionals for about an hour during the



week (practicing a little extra on the side doesn't hurt either!). We also have lots of fun gigs throughout the term, including Engineering Society events, and our infamous end-of-term charity gig that we have during the last month of every term where we raise funds for a local charity. This summer, we raised over \$300 and 35 pounds of food for the local Waterloo Food Bank!

If this sounds like something up your alley, then come out and listen to the band play at Monte Carlo in the outdoor courtyard of the Student Life Centre! We'll have a sign up list where you can sign up if you're interested in joining the band. Can't make it out?

Then e-mail admin@engjazzband.ca with your name, instrument and a brief outline of your playing experience, and we'll forward you all the information you'll need! You can also visit us at www.engjazzband.ca to catch the latest updates on the band. There will be a big meeting for everyone just to overview the term during the first week of classes, and we'll have our first rehearsal the following weekend. Hope to see you guys there!

EngPlay

IOANA CRAICIU
ENGLAY DIRECTOR

What is EngPlay? Well, reader, EngPlay is what you've probably already guessed. A play, put on by engineering students. EngPlays have taken place in the second last month of the term for a long time. I like to think that they trace their roots back to the very beginning of our school's existence, or perhaps the universe, though I can't conclusively claim this.

To put EngPlay in a nutshell, imagine somewhere upwards of 10 students coming together, taking a tale that in its past may have been an epic written by the fathers of literature or the contrivance of some inter-

net writer, it matters not, and determinedly working at making it as hilarious, profane, heart-warmingly silly, and ridiculous as one can possibly comprehend. Add to that a limited budget, varying levels of acting talent, home-made props, and conveniently cheap tickets.

So, dear reader, if you're currently wondering what extracurricular activities you're going to get involved with in your first year, I advise you to come out to EngPlay auditions, which will be happening the second week of classes. Look for the posters. If you find yourself reading this article and thinking the acting world is not something for you, that's alright too: you can come see the play!



The Iron Chef

Purple Noms

ALISON LEE
2A NANOTECHNOLOGY

So you may have noticed a few purple people around campus during O-Week. Even if you're not into being purple on the outside, be purple on the inside by eating purple food! Purple foods are often high in flavonoids, which are good for your cardiovascular system, although don't expect too many flavonoids in a purple Slurpee. This is a list of foods you can consume to get your purple on.

Jell-O: You bought a jumbo box of grape Jell-O that failed to dye your skin? You can still eat it; at least it'll dye your tongue purple.

Popsicles: Surefire way to turn your entire mouth purple, not just your tongue.

Blueberries: Frozen in a smoothie, or mmmmm blueberry ice cream from Marble Slab

Red Cabbage: Purple in neutral solutions, pink in acid, and blue in base. It's nature's pH indicator!

Eggplant: Or you can call it aubergine if you want to sound fancy and French. Mais oui, j'aime manger les aubergines et tout ce qui est en mauve!

Beets: But don't eat too many at once- they can turn your urine red because not everyone can digest the colour pigment. No joke, the condition is called beeturia.

Plums: Get these fresh at the UW Farmers Market every Thursday.

Grape Drink: I think "purple" is actually on the ingredients label...

Freezies: It's one of the infamously unpopular Freezie flavours, but take pity on the Purple!

Erythrosine and Indigotine: Blue and red food colourings that give your freezie that natural purple colour.

Slurpees: Try not to drink 2L at once, but these must be high in erythrosine and indigotine.

Blue Corn Chips: Purple enough, and good with salsa.

Taro: In the land of purple bubble tea, taro reigns supreme (over grape...it's a two-flavour kingdom)

Cadbury Chocolate: What? The wrapper is purple.

Prunes: Good source of fiber to keep you regular.

Violets: Yes you can eat them! They are often candied and put on fancy cakes, so go to a fancy cake shop.

Purple Cow: Blend vanilla ice cream with grape soda, milk, and ice cubes, and voila!

Jelly Bellies: The purple flavours are wild blackberry, grape crush, mixed berry smoothie, plum, sour grape, and island punch.

Smarties: Eat the purple ones last :)5. Sprinkle with pepper... need I say more?

Lore of the Lumberjack



CHAD SEXINGTON
4Z
MANGINEERING

Good Morning Sexy Readers!

It's another sexy term, a brand new year, and for some of our fantastic new first-years, a whole new life awaits! Greetings and welcome to the school filled with the sexiest people alive. I am Chad Sexington, haunt of the satire and randomness page. Pourer of maple-flavoured wisdom and lumberjack lore, many of you will stop reading now, but wait, for within these words is contained the knowledge of years collected by manly lumberjacks since the dawn of time itself. Everyone knows that it isn't easy coming

to a new city, let alone a new school. Things you once knew are gone, lost in the pile of "back home I had ___ and knew ___" nostalgia that everyone keeps locked in their closet of memories. But fear not, it is a tough time starting from scratch, and many of you may think that you are at level 0 of a social support structure, but soon you will realize just how rich you are. For to think you are defeated is to make it so. And now, in the style of my usual old-timey man ramblings, allow me to dispense what the satire column usually holds for you during the frosh issue of the IW: my version of what I wish I had known when I arrived here. So without further adieu, I present: Chad Sexington's Seven Simple Suggestions for Starting School.

1. Don't Sweat the Small Stuff

It's 3am, a calculus assignment worth 1% of your mark is due the next morning at 8am, and you haven't started. Don't worry about it. As momma bear used to say, there's no point crying over spilled syrup. I've known people to shed tears over assignments like this. Trust me, it's not worth it. 50% of you are going to be in the bottom half of your class. Get used to it, it's not a bad

place to be. Now I'm not saying don't do your homework, because you definitely need to (your high school last minute half-assery isn't going to cut it here), but unless it's a giant project or essay worth your entire grade, don't cry over a spilled % or two. You'll feel better, and you'll be happier in the long run, allowing you to enjoy the classes you're in rather than hate them.

2. There is Something for Everyone

You hear this a lot, but we say it because it is true. When I was in high school, I was a "nerd". Not a lot of people got me. I understand that, to a lot of people the fact that you like math and science is inimical to their understanding of fun. But once I got to Waterloo, I found out that more and more people had similar interests to me. It's

why they picked this school. But no matter what you enjoy, be it reading comics or playing hockey, or both at the same time, I can guarantee you that there are at least 100 other people on this campus that like the exact same things as you, and there is probably a club for it. If there isn't, you can start one, and if you build it, they will come.

3. Find the Coffee

University makes addicts out of many people. Some get addicted to knowledge, most get addicted to coffee. If you're hitting up Tim Hortons once a day for a coffee it's going to wind up costing you in the neighbourhood of \$2000 to \$3000 to feed your habit through your

5 years here (half that cost if you use the Engineering Coffee & Donut Shop). Know how and where to get cheap or free food and drink. It's out there, it's hidden, but it can save your life. You'll need it for the all-nighters you're definitely going to be pulling.

The Waterloo Engineering Competition

AMRITA YASIN
COMPETITIONS DIRECTOR

Welcome to the University of Waterloo faculty of Engineering! Being enrolled in an engineering program does not only mean working towards an engineering degree. You should always look for extracurricular opportunities that allow you to use and apply your engineering knowledge outside the curriculum.

Waterloo Engineering Competition (WEC) is one such avenue organized by the Engineering Society (EngSoc) and Sir Sanford Fleming Foundation (SFF). WEC is broken down into three categories: Junior Design, Senior design, and Consulting.

The Junior Design Competition is open to first and second-year students in teams of four. The teams are given four hours to design and build a prototype in response to the given problem. Students are required to make a poster presentation on their design and demonstrate the functionality and fea-

sibility of their prototype. In the past, majority of the problems have involved the building of a vehicle which can run over the provided terrain. The senior design competition, for third and fourth year students is run similarly to the junior design competition.

The consulting competition is open to students of any academic level. Students from any year and discipline can form teams of four to participate. This category focuses on research, product development and presentation, and project management skills. Students are given five hours to come up with a feasible solution to a real engineering problem. Students are required to submit a report and a presentation at the end of the design time explaining their solution.

The competition is held during the Spring and Fall terms so all student have an opportunity to participate. The Winners from WEC represent University of Waterloo on the provincial level at Ontario Engineering Competition (OEC) held in February. They also

4. Study in a Way that Works for You

You're going to meet all kinds of people here, and some of those people are like the savant's of lore, who can read something once and recall it indefinitely. They understand everything the first time, and have no need to spend hours in the library practicing questions and memorizing things. Chances are, you are not this person. Study and learn in a way that works

for you. Ask for help. If you learn better by reading the notes, do it. If you learn best by listening to your prof, get someone to take notes for you (buying them coffee can help). Get a support group. Most assignments are impossible to do by yourself, so a study-buddy or 5 is one of the best investments you can make to save yourself from banging your head on the desk.

5. This Isn't High School

You are not a special unique flower. Self motivation is the skill that causes more people to fail than any other. People can preach this until they're blue in the face and say it until they sound like a tree chipper grinding up a tough spruce, but some of you are never going to learn until you learn the hard way. You can't study for 15 minutes and expect to pass. You can't hand things in whenever you feel like it. You can't wait for someone

to remind you to read your notes. Nobody is going to get on your ass to do your homework. You're going to need to learn to grow up and motivate yourself quick, or you're going to get left behind and nobody is going to save you, because as much as Engineering is a family, it's also a cutthroat competition. Everyone else that is here had to pass the same entry requirements as you, so they're at least as competent, if not more so that you are.

6. Have Fun

Your primary motivation at university is to learn. But unless you want to spend every single hour memorizing types of steel and practicing wave equations, you need to learn how to have fun. Is it better to spend 10 hours on that extra question, or is it better to spend 1 hour on it and then go relax and come back to it? Time

is short for fun in engineering, so power-relaxing is key. Optimize your free time by doing the most fun thing you can do, choose your activities wisely, and try to mix in recreation with your fun. If you don't pick up this skill, you'll explode, implode, melt down, or have some other disaster metaphor happen to you.

7. Experiment

Old people say that youth is wasted on the young. Prove them wrong. This is university, it's where people can really be free of external controlling influence of family, teachers, old peers and just about everyone else. You start from your teenage self and grow into who you are going to be for the rest of your life. Be proud of the things you like and make good decisions, but try things you wouldn't have before. Maybe you'll like them. Everyone tries everything once in

University. That's the point. Because when you're 50 years old you can refer back to your "experimental phase" with nostalgia. Be a rebel, it's the only time you can do it relatively consequence free. So next time someone says, 'want to come to a party/skydiving/on a road trip this weekend?' say yes. You'll learn something from it. Hold on to your roots and call your family once a week. They'll appreciate it, because as much as you miss them, they miss you more.

That's all the space I've got for now my sexy readers. If you have any questions for Chad, hit up questions4chad@gmail.com and I'll answer them in my termly

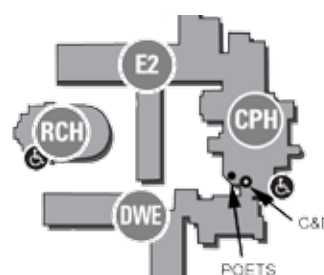
Q&A with Chad article coming up soon. Remember not to panic, and..

Until next time,
Stay Sexy.

MORE THAN JUST COFFEE & DONUTS

The EngSoc C&D has more than just Coffee and Donuts. Stop by for a variety of freshly prepared sandwiches, baked goods, soups, and more! It is run by students for students, so the prices can't be beat!

There are a variety of specialty coffees available - including fair trade. Bring your own mug to help the environment too!

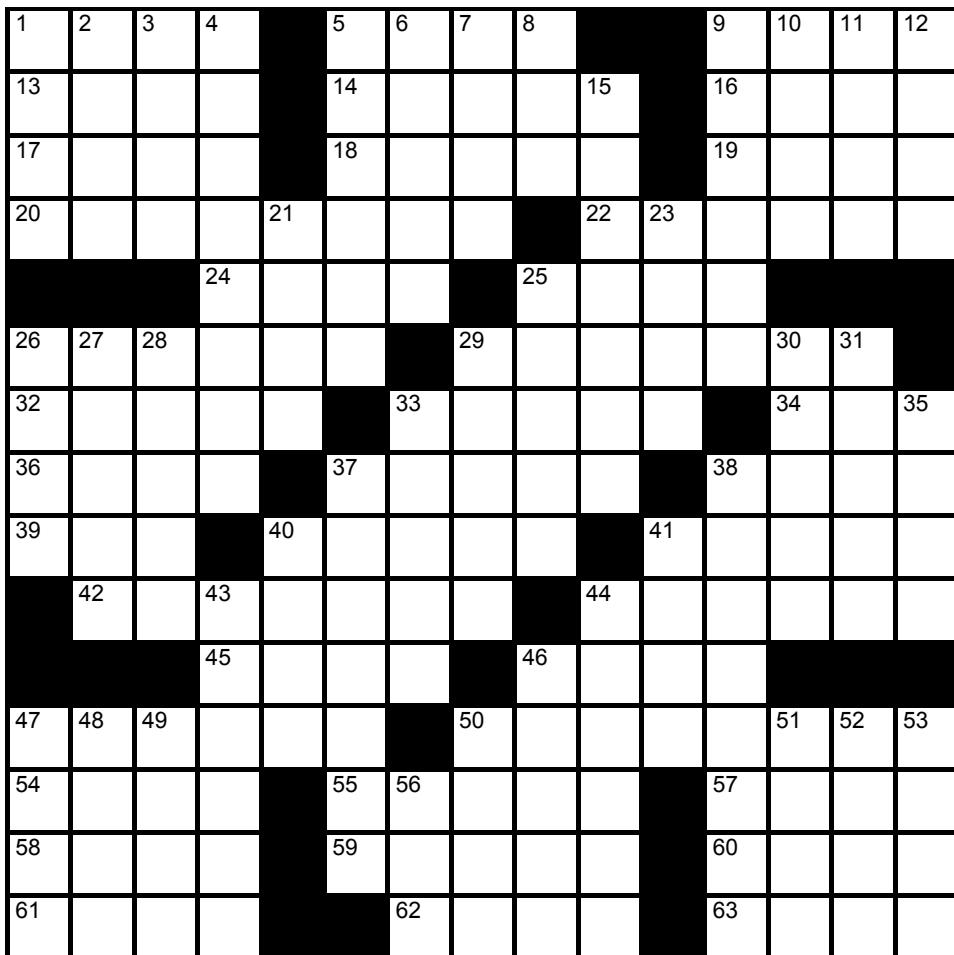


HOURS OF OPERATION
MONDAY-THURSDAY 7:30AM - 7:00 PM
FRIDAY 7:30 AM - 5:00 PM



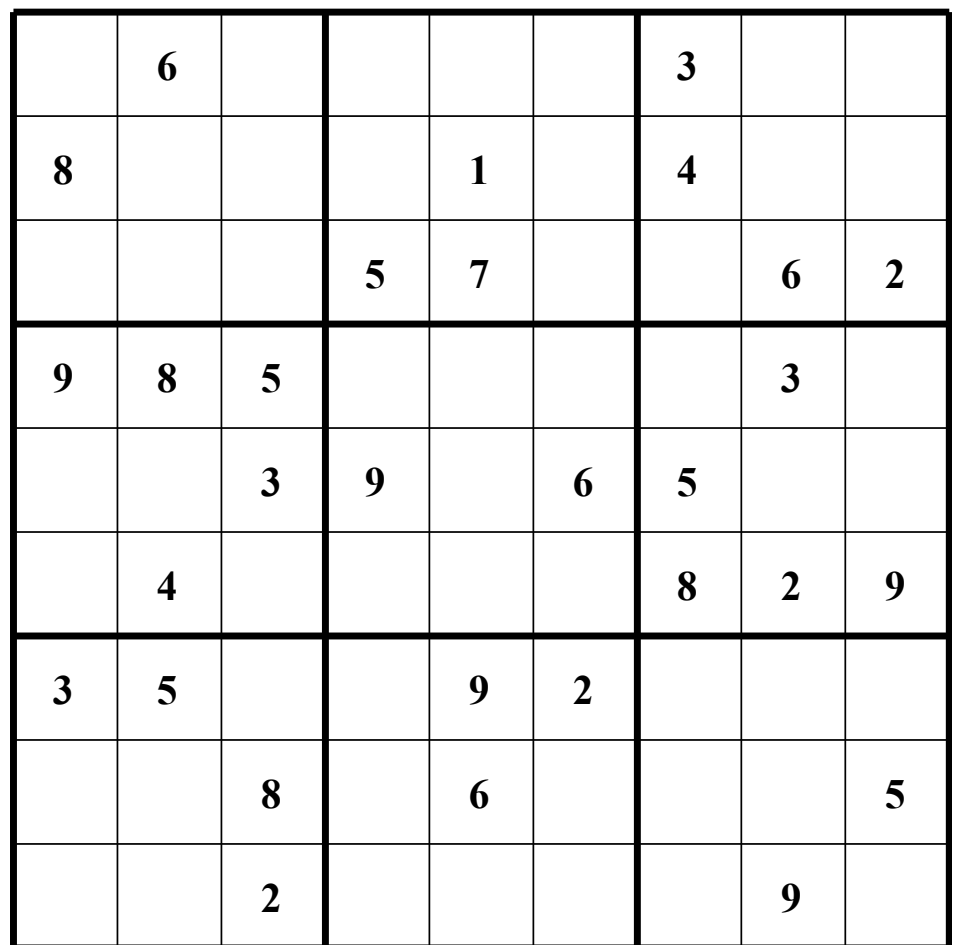
The Iron Crossword

STUART LINLEY
2A NANOTECHNOLOGY



The Iron Sudoku

ANGELO ALAIMO
3N ELECTRICAL



DOWN

1. Arrived
2. Figure skater's leap
3. Chromosomal segment
4. Eyaffjallajokull's form of expression
5. Break out
6. Sometimes it's grand
7. Inanimate pronoun, twice
8. Blackguard
9. Epic movie of old
10. Hawaiian party
11. A set of islands across the mouth of Ireland's Galway Bay
12. First name of the most famous girl in the Louvre
15. Many an engineer's favourite childhood obsession
21. Brewers' needs
23. It's something you get stuck in
25. Llama look alikes: al _____
26. Comfy living room staple

27. Patricia, for short
28. ____ -car
29. Plant shoot
30. An essential acid
31. Very small bits
33. Brings in
35. Morays
37. They're good with knots
38. Reaction speeder
40. A short dramatic production
41. Withdraw
43. 20-across of the sea (sorta)
44. The vikings did this
46. Man cannot live on it alone
47. Deeply regrets
48. That ____ last summer!
49. I want it NOW!
50. Caesar's last: "____, Brute?"
51. A very long time
52. Nintendo racing hit: Mario ____
53. Before, poetically
56. Irish airlines: "____ Lingus"

ACROSS

1. Wire enclosure
5. A great tale
9. An onomatopoeia
13. The executioner, sometimes
14. Ab exercise
16. Continental currency
17. List of options
18. Capital of Egypt
19. Indian bread
20. Unforgetting trumpeter
22. Big _____ (Chief)
24. "____' the mornin' to yeh!"
25. Llama land
26. Zebra feature
29. A ninja's greatest adversary
32. Twistable cookies
33. Disney's multi-cultural center
34. A Stooze
36. Sawyer's pal
37. It's a wrap!
38. Reference
39. Series convergence test (abbr.)
40. Indian dresses
41. Man-made river
42. Quite the black hole expert
44. Do-over, for dice and salad
45. Suffers
46. Part of East Side Mario's slogan
47. Famous Venecian bridge
50. What you might call a spooky great?
54. Red letters of the far left
55. Gave stars, ex.
57. One orbit
58. Jacob's brother
59. Tiny, stiff hairs on annelids
60. The worst kind of loser
61. Absorbs, with "up"
62. Actor Paul of "Knocked Up"
63. It's dynamites!

THE IRON INQUISITION

Cailin Hillier, 3N Geological

"If you could offer one bit of advice to incoming students, what would you tell them?"



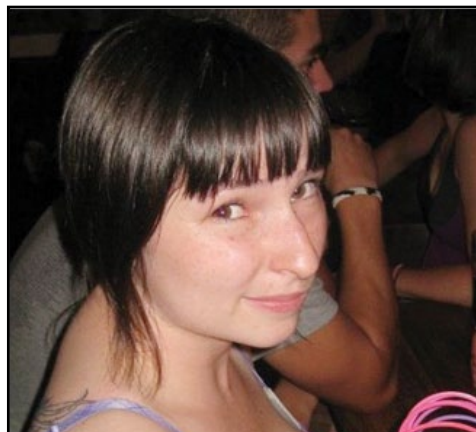
Doug Fournier
3N Mechatronics

"Participate as much as academically allowable!"



Adam Acovski
3N Environmental

"Keep normal sleeping hours so you can attend class."



Melissa Deziel
2T Management

"Go to class, get involved, have fun. Make the best of your 5 years"

Julie Laver
3N Computer
"Branch out and hang out with people who you wouldn't normally. Many of my friends are the people I'd least expect"



Corey Hiller
4N Chemical

"University flies by.. don't waste that time. Have as much fun as you can!"

