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LowRider

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A Welcome From The First Year Director



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. Your undergraduate degree will take approximately five years to complete and it is important that you start this process with a little bit of care and planning. The First Year Engineering Office is here to help you plan and manage the transition from High School and home to a new environment in the university.

Starting university is also synonymous with becoming an adult. You have the freedom to do what you like and also the responsibility of taking care of yourself. It is your choice to attend classes, complete assignments or give exams; however, we highly recommend that you do all of these things as they will benefit you greatly. The decisions that you make now will have far reaching consequences later in your life. So, choose wisely! Let me give you some tips on succeeding in engineering at Waterloo.

Balance your Life: Your first thought when starting your university career may be at one end of two extremes, either to study-study-study, or possibly, party-party-party. Neither of these extremes is the ideal choice and, as usual, the truth lies somewhere in between. Let me suggest that a complete human being is made up of three major parts: mind, body and soul. To be successful in life you need to nurture all of these parts because they depend on each other for survival. For your mind you need to spend time studying and developing critical analysis skills; for your

body you need to eat, sleep and exercise regularly; and for your soul you need to relax with friends or take part in extra-curricular activities. Not only do you have to nurture all three parts, you need to balance the amount of time spent on each activity. And, just to make it clear, balance during your university life means studying is the major activity you are expected to do, but without ignoring other aspects of life.

You will also find that time will become an important resource that is in short supply during your undergraduate career. There will never be enough time to complete all the tasks to the degree of satisfaction that you would like. Thus, you will have to set a priority and spend

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 whenever 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 if you are dealing with significant personal or medical issues during your study term, especially if you are going to miss classes and 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 4761 during normal working hours.

Be Professional: Engineering, like many other programs, such as, medicine, law and accounting, are considered as 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 job during Co-op work terms as well. Any unprofessional behaviour during your university career can have serious consequences and, depending upon the seriousness of the misdeed, it can lead to expulsion from the university or worse.

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 means treating everybody equally and without prejudice, regardless of their race, colour, creed, sex or religion.

Being a professional means not lying, cheating, or copying on assignments and exams. 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.



Balance is key.

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

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

Ask for Help: All engineering programs are demanding and have heavy workloads. The workload may result in limited time to understand a concept, finish an assignment or project, or prepare for an exam. This is why it is important to make a time schedule and to use it every day of your life. The lack of time may also cause stress in your life. In these situations, you will need

Year Office to help you with your courses. The Director and Associate Director of First Year Engineering are also available to provide academic counselling of a more general nature, for example, in case your academic performance is not meeting the standards we expect of all students, or you want to take extra courses during your normal study or work terms, or courses at another university. Please make use of all of these resources.

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

For your physical health, you have access to doctors and nurses on campus at Health Services. It is important that

Lighten Up, You're At UW!



DAN ARNOTT
EDITOR-IN-CHIEF

Okay, now I editorialize! It's about time, too. I've spent the summer working at Peto MacCallum Ltd, a consulting company in Kitchener, doing field and lab work. And when I'd do up my reports at the end of the day, I always had to resist the temptation to editorialize.

Believe it or not, it's hard to stay objective when you're writing up the same routine testing report day after day. I couldn't offer my opinions of the site superintendents (usually crotchety, suspicious, and bellicose, with a few exceptions), my artistic interpretations on exactly how wet the ready-mix concrete was (comparisons with various levels of diarrhea), my anecdotes about the contractors (the guy driving the packer fell asleep one afternoon, and the guy in the excavator woke him up by hitting him with the bucket), or my directions on where to find yesterday's concrete test cylinders (stored in some lucky jackass's field office trailer with air conditioning, while I stand out in the sun for ten hours a day sweating into the ready-mix, not that I'm bitter).

All in all, it was a rewarding work term, but it was a nice change to get back to working on the Iron Warrior. Or so I thought. When it's time to edit the Frosh Issue, the A-Soc'ers have just finished exams and don't want to do any work, and the B-Soc'ers are still on work term and don't have much time for it. Both parties are totally justified, so I want to thank everyone who's taken the time to help put this issue together. It's because of you that I still have a few scraps of sanity left.

But now, peoples, I got to speak about something. Frosh, this is for you.

You've been told that this is the best engineering school in Canada. Indeed, you're even reminded of it a few times in some of the articles in this issue. Me, I believe that in many important areas, that's absolutely right. Our academics are unparalleled, our faculty and staff are great

at what they do, we're on the cutting edge in many different research areas (even our, ahem, Environmental Engineering program is world-renowned), and all things considered, nobody's TOOL is as big as ours. But that being said, I believe that Waterloo also has some areas that need work.

Allow me to explain.

I imagine most of you have at least a few friends that are going to other universities. Remember when you told them you were going to be taking engineering at UW? Didn't a few of them screw up their faces and groan? Didn't they say things like "So much work!" and "you'll do nothing but study!" and "it's so unfriendly there!"?

(The first one's true. It is a lot of work, but nothing you can't handle if you were able to get accepted in the first place. The second one's a recipe for disaster- there will always be time to do something other than study, because if studying is all you do, you'll burn out like I almost did.)

But it's the third one I'd really like to address. Is Waterloo really as cold and unfriendly as other universities think it is?

If you ever visited Laurier or Guelph when you were in the process of choosing a school, you probably picked up some pretty good vibes. Laurier has a very small-campus, high-schoolish, huggy, everybody's-your-best-buddy atmosphere. And if you're a dirty hippie Enviro like me, you probably dug Guelph's liberal grass-roots-and-bean-sprouts get-back-to-mother-Earth ethos. Compared to those schools, Waterloo could very easily seem cold, unfriendly, overly professional, and detached from the general experience of human emotion.

If that's what you really think, you're fooling yourself.

Waterloo, like Guelph, Laurier, McMaster, Western, or any other school out there, is composed of students. Us. If it wasn't for students, there would be no university. The administration may help us achieve our academic goals, but it does not make us who we are.

The university therefore becomes what the students want it to be. It takes on their ideas, their goals and initiatives, their likes and dislikes. There are other factors that

influence what a university is, but they are secondary to the will of the students.

Laurier is a huggy school because it wants to be huggy school. Guelph is liberal because that's how the students want it. U of T is a place for cannon-brandishing TOOL-stealing boastards because that's what it wants to be.

So it's up to us to foster a friendlier, more liberal Waterloo.

It's time we stopped looking at everyone in our class as a competitor and started recognizing them as people. It's time we recognized that somebody else's religion or philosophy or traditions just might have some validity. It's time we started talking to people in the C&D instead of just bumping into them. We need to break out of our cliques and comfort zones, because really, the only reason they exist in the first place is because this place made us uncomfortable. And that's what we're trying to end.

This is easy. But it's not much harder to change the bigger stuff. Policies may seem insurmountable, but they're not. I realize nothing is black-and-white, but once we've decided what's best for us, there's no reason why we can't persuade the University to agree. There are thirteen thousand of us here at Waterloo. We matter.

Once again, we're the students. We make the university. Nobody wants to be isolated from their fellow students, from their fellow humans. So if we don't want to feel isolated, there's no reason why we should. It's as simple as that. Waterloo is only as cold, boring, impersonal, or unfriendly as we allow it to be. And personally, a cold, boring, impersonal, and unfriendly Waterloo doesn't sound very good to me at all. That's not the kind of university I want to attend, and more importantly, that's not the kind of university I have been attending for the last two years.

That's right. It's what we make of it, and many of the people I know, myself included, have chosen to make something beautiful out of it. You are not alone here at the University of Waterloo. We're in this together. So live a little. Be liberal. Be spontaneous. Talk to someone. Protest something. Stir up the pot a little bit. That Iron Ring will be like lead on your finger if you didn't live a little while getting it.

IRON WARRIOR

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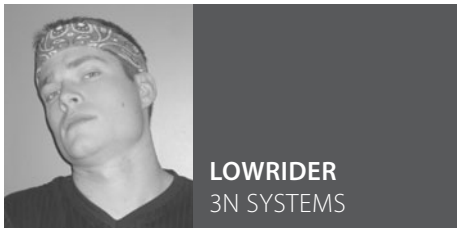
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The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. The author's name and phone number should be included. All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required.

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Frosh... Meet LowRider.



Dear LowRider,

I'm currently in the process of putting together the Frosh issue of the Iron Warrior, to be distributed to first-year students in their orientation kits. I'm sure you have some questions tucked away somewhere (as people are always sending you so many), so we'd appreciate it if you could answer a few of them in your usual style for the Frosh issue.

With Love,
IW Editor.

Dear Ed,

Another year has rolled past eh? Time sure does fly when you're having fun.

So we're getting yet another batch of fresh meat eh? Very nice. Stupid frosh don't know what they've gotten themselves into. Oh well, if they're reading this, it's already too late.

Yeah, I'll write you another one of my masterpieces...

Welcome to the University of Waterloo, younglings. You are now a part of the greatest engineering school in Canada, hands down. Arguably, one of the better on this green planet. This fine institution will kick your ass day in and day out.

LR

Dear Stupid Frosh.

Let me introduce myself. The name is LowRider. There is no substitute. Note the proper spelling. Before you do anything else, find yourself one of those new-fangled computers and download myself titled song by War and listen to it five times...

I wear a red bandana. This bandana is a very special bandana. Not some dollar-store snot rag. It has been passed down from LowRider to LowRider for many generations. It give you super powers. LowRiding has been around for as long as the school itself. Way back in the day, the first LowRider was given the bandana from a power greater than what anyone can

imagine. LowRiding is a tradition from the Systems Design department. Why, you ask? Simply because we are the coolest (and don't forget the smartest).

What the hell do I do, you ask? Well, um, I answer your questions and give you advice on any topic you can think up, you dumb-ass frosh. I tend to include some funny shit here and there, not to mention try to squeeze in some swearing words, and sometimes my sentences go on and on and on and on and contain grammatical errors. But engineers can't spell anyways, so who gives a shit? Email me your questions and I'll answer them to the best of my witty knowledge. LowRider keeps the Iron Warrior cool. Most of the time the IW is full of filler and terrible stuff.

Look forward to the Iron Ring. Have fun. You'll do just fine Frosh.

LR

Dear LowRider,

I'm not too sure that I did the right thing. My brother is an upper year student and he talked me into applying to UW Engineering. I wanted to go into Mechanical at first, but then he forced me into Systems because he thinks that Systems is far cooler on the coolness scale.

I have a couple more weeks of summer left before I donate the next 5 years of my

kan speel ur name, spoke zee english language and forme da sentence "I vill knot phail the english langaage proficiency exan" you'll be fine. You want to know what a toga is, eh? A bed sheet wrapped around your body. Chances are it'll fall off sooner or later during the party. A little bit of nakedness is good for the soul.

The TOOL some pretty sick ass cool shit, mang. Make sure you make it to meet the TOOL during the week. Don't try to touch it though or those bearer guys will snap you in half.

You'll do fine, my young son. Someday you may don the bandana. Until that day, drink up and keep it low.

LR

Dear LowRider,

I love the University of Waterloo very, very much. Engineering is soooooo cool. ETRW!!! I barely passed my first year here but I got this sick tattoo of the tool the entire length of my back (just between you and I it's a temporary one that my mom did for me). It even has rigid and fifty inches written on it. I wanna be as cool as you someday and maybe even live in that Palace they call Unit 36. I also drive this sick honduh civic with a big pointless wing and sideways tin can exhaust pipe that sounds like it farts. It adds 59 horsepower. I want to be one of those super cool guys that wears those coveralls and looks tough chained to that extremely long wrench. Where do I apply?

-Illuv Skoole

Dear Mr. School,

Nice name, buddy. You're hopeless. Go to U of T where you'll fit in better. I hear they have a stupid little cannon. I think they also offer basket weaving engineering. Don't waste my time.

LR

Dear LowRider,

I'm the president of the LowRider groupy fan club chicks club. I just wanted to let you know that we just finished putting up the giant poster of you in our club house. You look super sexy when your face is the size of a billboard.

Can you please publish this letter in the Frosh Issue? We need more Frosh girls to join your fan club. We currently have more than 300 beautiful ladies in the club all ready with their pom-poms. If you want to join the club please send LowRider an email and he'll take good care of you.

I love you, Mr. LowRider,
Vanessa the Architect

Dear President,

Keep up the excellent work.

LR

'till next time, keep it low, kids.



Random Frosh.

LowRider says it the way it is. He keeps it real in this rap game. I also represent the other side of UW Engineering that you didn't see in the fancy colorful glossy book they sent you. The traditional stuff like Unit 36, good times, and most importantly the BEvERages.

For the love of God, please enjoy your time at UW. Don't get so caught up in the books that you forget to live a little.

life to this school. Should I be worried about that English test thingy? What about the Math test thingy? What's a toga?

One thing is for sure though, Mister LowRider, I can't wait to see my new mascot. From what my older and much wiser brother tells me, it is an infinitely long and infinitely heavy chrome-dipped pipe wrench made by the Ridgid Tool Company. I hear the TOOL weighs over 300 pounds and is protected and carried around my these graduates in coveralls that call themselves the TOOL Bearers. Am I right? I've heard that these dudes even breath fire if you piss them off.

Instill confidence in me, LowRider. Aim me in the right direction.

Sincerely,
Little Brother

Dear Miguel,

Your older brother is much wiser and smarter and stuff than you think. He sounds like a class act. Does he happen to rock a red bandana on occasion?

You have nothing to worry about. Iff u



Ridin' Low in High Style.

Have a problem? Need advice?
Email LowRider at
uw_lowrider@hotmail.com

ENGINEERING SOCIETY EXECUTIVE REPORTS

A-Soc President's Report



NICK LAWLER
PRESIDENT

Hey all! Welcome to Engineering at the University of Waterloo. My name is Nick Lawler, and I am the President of Engineering Society "A". The Engineering Society (EngSoc) is very similar to your high school student council. We have regular meetings, run activities and provide services in our office (more about those later). We also advocate for and represent the undergraduate engineering student body here at Waterloo.

Due to the co-op system, all engineering students are a part of, EngSoc is split in two separate Societies, "A" and "B". You are all now apart of "B-Soc", and your President's name is Karim. Soon, B-Soc will go on work term, and those of you who are 4-stream will follow them. The 8-streamers will stay here on campus and join me on A-Soc. I will be your President

for the Winter term of 2006. It's all a little confusing, but you'll eventually get the co-op thing down after being at Waterloo long enough.

Anyway, I encourage all of you to join and attend EngSoc events; it's a great way to meet other engineering students not in your class. It's also a great way to learn about how things are done around here. If you ever have a question about anything, without a doubt, an upper year student has experienced it before and would be more than willing to help you out. Come check out the nerve centre of the Engineering Society, the Orifice, located right beside the Multimedia Lab in Carl Pollock Hall. The Orifice has cheap photocopiers, free binding machines, lots of info for cool things to do, and even cheap fax machines.

So drop by, come out to our meetings (look for posters) and see what EngSoc has to offer. Remember, we can't do anything without volunteers, so if you feel we are missing something you want to take part in, suggest it, and make it happen! Good luck, and have a great fall term. See you in January!

A-Soc VP Education Report



MELINDA HURD
VP EDUCATION

Welcome class of 2010!! My name is Melinda Hurd and I am the VP Education for the A-stream of the Engineering Society. For those of you sticking out the first 8 months of school, that means that I'll see you in the winter!

As VP Education, I have the opportunity to represent the interests of the undergraduate engineering students to UW bodies such as the PDEng Steering Committee, Co-op Student Council, the Senate Undergraduate Council, etc... I also work with my directors to bring important services to students such as course evaluations, scholarship information, and (hopefully in the winter) exciting student workshops. If you have concerns/questions/comments regarding your engi-

neering education at Waterloo, come talk to me!

The engineering society provides some important services that you, as a frosh, should definitely take advantage of in your first year of life at Waterloo. Specifically keep your eyes open for Resume Critiques and Frosh Mentoring workshops. Entering into the co-op process at UW can be overwhelming at times, but if you get your resume critiqued, you may be able to set your mind at ease. Senior engineering students have 'been there' and 'done that', and having an older student take a look at your resume can give you the edge you need to get an all-important interview. Frosh mentors are also a great way to find out the inside scoop on how to deal with homework, rent, how not to get lost on campus, etc. Take advantage of these fantastic services!

The one piece of advice that I will pass on to you (that my frosh leader gave me back in 2002) is to get involved in the Engineering Society. It's a great way to meet new people, to find out about the exciting events that are always going on, and to contribute to your engineering

A-Soc Executives

Nick Lawler
Melinda Hurd
Jason Jagodich
Sabrina Giovinazzo
Michael Buczkowski

President
Vice-President Education
Vice President External
Vice-President Finance
Vice-President Internal

B-Soc President's Report



KARIM LALLANI
PRESIDENT

First off, congratulations on being accepted into the top engineering school in Canada. You should all be proud of yourselves. If you don't know this already, the Engineering Society is split up into two streams: A & B. For the first four months, all of you will be a part of the EngSoc 'B' Society, which means that I will be your EngSoc Prez for the next 4 months. For those of you in 4-stream co-op, you will stay with BSoc forever, and the rest of you will join ASoc in the winter term.

The biggest advice that I can give to all of you is to make sure that you balance your school work and everything else that you enjoy doing. If you study all of the time, you will not enjoy the full university experience. Try to get involved with the engineering society as well as clubs and intramural teams. The engineering society runs a lot of events, including a talent show, bowling night, semi-formal, water fights, and much, much more. We also offer a lot of services just for you, including an online exam bank, resume critiquing service, and a coffee and donut (C&D) shop. I definitely recommend that you stop by the Orifice or POETS to meet your exec team, and find out how you can get involved with the Engineering Society. I'm looking forward to meeting all of you and I wish you the best of luck in your first term!

B-Soc VP Internal Report



ANDREA RAYNER
VP INTERNAL

Greetings!! First of all, frosh, welcome!! We're glad you decided to come to Waterloo. You may see me around during Frosh Week, I'm part of the black colour group. But really, I'm not that scary in real life, and am actually quite approachable. My name is Andrea and I'm the EngSoc VP Internal. It's my job to make sure there are tons of awesome events run throughout the term. Some of the great things you have to look forward to this term are B**5, P**5 and W**5. No clue what those things might be? Find someone who looks older than you and ask! Most days during lunch breaks you can find me either at my desk in the Orifice, or eating my lunch in POETS. If you were a keener in high school, (maybe you were on the student council or belonged to a million clubs), getting involved with EngSoc will definitely be for you. Even if you weren't a keener, there's bound to be something that tickles your fancy. Every term we have over 100 directors, students just like you, that make sure all of our events go off without a hitch.

EngSoc is a great place to come on out and make some new friends. You might find yourself sharing a room for the very first time, and with a stranger to boot. You might feel like you know nobody and there are just too many people out there to try and get to know. Well, stop by POETS, drop into the Orifice, say hello! We'll make sure you feel welcome. Better yet, come on out to the first EngSoc meeting of the term. Want to get a bit involved? Think about becoming the EngSoc Rep for your class. All you have to do is show up to a fun-filled meeting once every two weeks and be a voice for your class. We'll even make sure you don't go home hungry! Watch for posters on the walls for the date of the first EngSoc meeting, and watch for us Exec visiting your class some time after classes start.

To those of you returning, welcome back! Good to see you again, glad you could make it. This term looks to shaping up pretty well, should be tons of fun. Don't forget, Exec elections are this term, so start thinking about what you'd like to run for!!

To everyone, if you have any questions, or suggestions, feel free to drop me a line at bsoc_vpint@engmail.uwaterloo.ca!

In closing, I would like to leave you with this bit of information, 52% of Americans drink coffee. They obviously didn't count the universities!!

B-Soc Executives

Karim Lallani
Ken Hanes
Christina Waters
Dave Johnson
Andrea Rayner

President
Vice-President Education
Vice President External
Vice-President Finance
Vice-President Internal

Upcoming Events from EngSoc

Sun Sept 4	Mon Sept 5	Tue Sept 6	Wed Sept 7	Thu Sept 8	Fri Sept 9	Sat Sept 10	Check out up-to-the-day event postings on the EngSoc website at www.engsoc.uwaterloo.ca
		Registration Meet The Dean Meet Edcom! Hardhats	Junkyard Wars Meet The Tool Eng 101 Smorgasbord	English Language Proficiency Exam 11:00am	Scavenger Hunt (PM)		
Sept 11	Sept 12 Lectures begin	Sept 13 CECS part-time job fair (SLC Great Hall)	Sept 14 Volunteer Fair, SLC Great Hall	Sept 15	Sept 16	Sept 17	

Be a Foreign Exchange Student!



ALICIA LIU
EXCHANGE
DIRECTOR

Picture this: It's February. Tinky wakes up and looks out the window at a dark grey oppressive looking sky. He trudges through snow drifts, which once were pristinely white, but are now mottled and streaked with dirt and grime, on his way to class. Tinky eats a stale cookie. When he comes out of class, it is dark. Tinky thinks forlornly about the project he needs to finish this weekend.

Now picture this: It's February. Doris wakes up and looks out the window at a brilliantly blue sky and bright sunshine streaming into her room. She slips on her flip flops and heads off to class amidst tropical flowers on a campus bursting with colour. Doris snacks on fresh slices of pineapple and watermelon that cost 20 cents. After class, she makes plans to go scuba diving off a tropical island in Malaysia next weekend.

Is any more persuasion necessary to go on exchange? Canada may span six time zones, but if you go to Europe or Asia, hopping to different countries, eating a variety of new food, absorbing the culture, the possibilities for fun and travel are endless. Spend a weekend in Paris or your spring break in Thailand. You will get to meet a lot of great people and really broaden your outlook if you so choose.

So the 'Why' is pretty obvious, now for the 'How'. The following are important things to keep in mind.

Start planning early. I would recommend a year in advance. Getting the courses you will take abroad approved as equivalent courses required towards your

degree is a time-consuming process. You will need to find out if the required courses will be offered at the host school for the semester you're going for. You may need to take different courses from different departments or faculties, and to deal with conflicts. You may not be able to get all the required courses you need for a particular semester, so you have to make sure you will be able to make up any missing courses, or take them early if possible.

You will need to keep your average above 70%, and save some money for the flight, travel expenses, and if you're going to Europe, the increased living expenses.

Additionally, some schools, like the National University of Singapore (where I went on exchange last semester) are very popular, so you need to get your application in as early as possible. Academic calendars at schools abroad, especially in Europe, rarely match up with Waterloo's. The term abroad could start in October and end in March, which throws off your coop sequence. You will have to plan accordingly, and perhaps do a 6 month

coop, then a 2 month coop.

If you'd rather not be doing a phone interview at 2 a.m., reciting code line by line into the receiver, like I did, it would be best to arrange to come back to your last coop job. The main reason is that you are not allowed to use the coop system (even though everything is online now) while you are abroad.

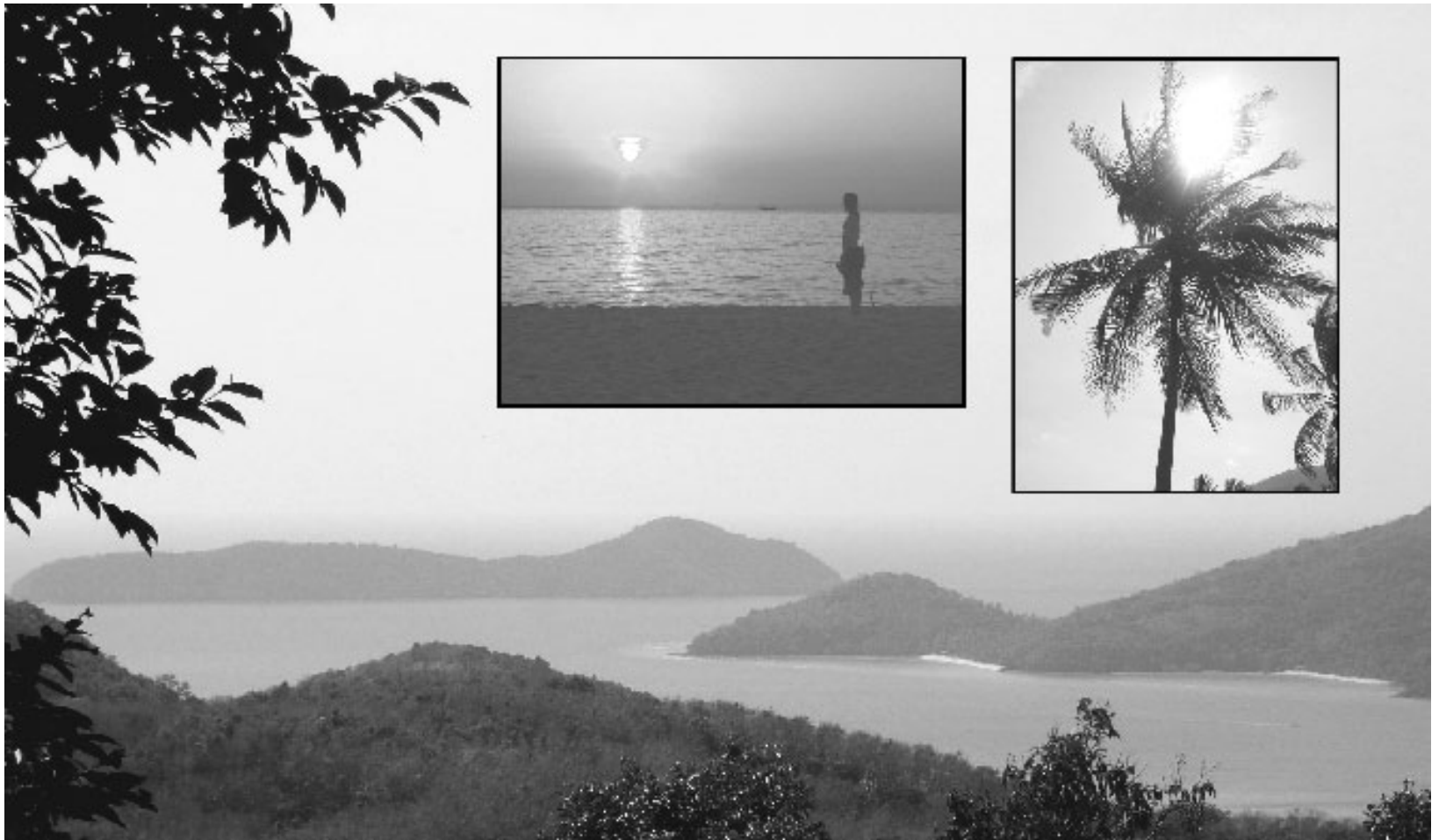
Also, in Engineering, you can only go on exchange during your 3A, 3B, and 4A terms. However, for many people, you will have to do a 4th year design project, which spans your last three terms. So going on exchange during the 4A term is not very practicable, while going during your 3B term requires you to plan your project and coordinate with your team long distance.

However, don't let the administrative annoyances discourage you. Talk to anyone who has done an exchange, it will be the best time of your undergraduate career. Opportunities to spend such a considerable time abroad without complicated visa applications and obligations are rare.

For a list of universities and countries that have exchange agreements with Waterloo visit <http://www.eng.uwaterloo.ca/~exchange/>. This website also contains detailed information about the exact application procedure for each university, what courses at each host school have been counted in the past as being equivalent to courses at Waterloo, and student reports about their exchange experiences. The exchange office in the Engineering Undergrad Office (Carl Pollock Hall, Room 1320) also has many resources on various schools which you should check out.

Most valuably, talk to students who've exchanged at the university you're considering. They will know the lowdown on critical information like which classes you should take or not take, which residence to stay at, things you should not miss doing, seeing, eating, etc.

Lastly, look out for events we will be organizing this semester where you can find out more information about doing an exchange and mingle with current and former exchange students.



You could even wind up somewhere like this...

Balance, and All That Jazz

ALLY CHAN
2B CHEMICAL

I know you've heard it time and time again, but university is all about balance. Between school, friends, sports, hobbies/interests, sleep, food, and showering -- oh, and family too! -- it could be quite the task. Before you know it, you would have cut out half the list, and the first few things to go will be sports and hobbies/interests.

Coming out of high school, I was involved with senior wind ensemble, senior jazz band, and choir, and I basically breathed my music department. I was there everyday for some reason or another, and have even slept in the classrooms for a quick nap. I always told myself that I would keep music in my life, but it's a lot easier said than

done when you just don't have the same opportunities you once did in high school. Don't get me wrong, university

has TONS to offer, more than I could have ever imagined, but there are certain things that are lost in the transition and sometimes you have to make an extra effort.

Which is why I started my own jazz band.

What the hell are you talking about, Ally?

Just that: I started my own jazz band. It made me sick to the stomach knowing I spent 7 years playing that instrument (alto sax, by the way) and to just stop when I hit university just about killed me. I knew a part of the reason why I didn't perform as well academically was because I just didn't have that drive anymore. In high school, having to attend 3-5 rehearsals/week, plus festivals and band trips

in high school, really had me determined and working hard to catch up on my school work.

After my 1B term (summer 2004), I went out on a limb and bought an alto saxophone for \$750. That's a lot of money. I told myself I wouldn't ever forgive myself if I didn't set out to do what I had always wanted to do: continue playing music. So throughout the work term, I found 25 interested players, and when winter term 2005 rolled around, I realized I did it. I had a kick-off meet-

ing, and despite a few minor details including not exactly having weekly rehearsal space, the jazz band I had envisioned since the second I left high school actually... existed. I couldn't have been happier to be able to play

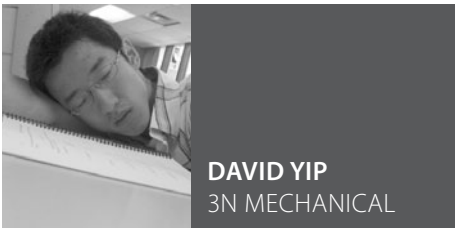
music again, and I couldn't be happier to give that opportunity to 24 other people... and hopefully more.

University has so much to offer, but if what you're looking for isn't here, why don't you just start it up yourself? There are millions of resources that you can look into, and at least enough people that would take part. If you take anything away from this article, take two things: 1) don't let go of the things that you did in high school and 2) anything is possible if you put your mind to it! Never in my life did I think I would be able to manage something this big.

Now onto the plugging. Be sure to check out With Respect to Time at various engineering events such as TalEng! The EngPlay! Coffeehouses! And hopefully a few more gigs! If anyone is interested in getting in contact with me, feel free to drop me a line at: a36chan@gmail.uwaterloo.ca!

"If what you're looking for isn't here, why don't you just start it up yourself?"

Broadening Your Education: Options and Minors



DAVID YIP
3N MECHANICAL

So you've made it into engineering, maybe into your first-choice program, maybe not. You may be 100% into your program, but you may also have a secondary (or tertiary) burning interest that you'd like to satisfy academically. Yea, you've always appreciated an elegant equation, but the subtleties that lie among the rigors of Latin also appeal to you as well.

Enter the option. The option is akin to a 'minor'. An option is a group of elective courses that you can take to broaden your education. When your option is successfully completed, it will be noted on your degree.

The Faculty of Engineering offers several options.

The two newest are biomechanics and mechatronics. The option in biomechanics is a combination of design and kinesiology courses that will provide an introduction to the human body, biomaterials, and medical technologies. If you're interested in prosthetics, medical robotics, ergonomics, or medical implants, this option may be for you. As you may be aware, kinesiology lies within the Faculty of Applied Health Sciences, which has the distinction of having a 68.5% population of females. This may factor heavily into your option decisions.

Mechatronics is a combination of the original fields of mechanical, computer, and electrical engineering. Computer controlled electromechanical systems are the specialty of mechatronics; fields such as robotics, automation systems, and neural prosthetics. As by-wire controls such as fly-by-wire, drive-by-wire, and now

brake-by-wire increasingly replace traditional mechanical systems, mechatronics is a fast-growing field. It is primarily intended for students in systems, mechanical, computer, or electrical engineering. If you wanted into mechatronics after the program started, this is for you. Plus, you'll have the benefit of a primary degree in something that people actually recognize. (ie: Computer, Electrical, Mechanical, Systems. Okay maybe not Systems. The eternal question stands: What do Systems do?)

For the more adventurous, there is the option in International Studies in Engineering. To satisfy the option, certain courses must be taken, so it is important to note these and avoid wasting your complementary studies electives (CSEs) on courses that do not fulfill the requirements. Additionally, a written report is required, as well as eight months of work and/or study abroad. As engineering is a global profession, knowledge of the workings of at least one other language and culture is excellent experience and will provide fresh insight on the way things work, and more importantly, the way things can be improved at home.

As engineers, we must be very much concerned with the world around us. For those especially concerned, there is the option in Environmental Engineering. The option includes courses in environmental policy, chemistry, biology, pollution control, ecology, transportation systems, and modelling. The courses covered in the option are very much related to the mechanical, civil, systems, and chemical engineering programs.

For the business-oriented, the department of Management Sciences offers its

option. To quote the undergraduate calendar, "The field of Management Sciences deals with the application of scientific methods to managerial decision making. This includes traditional areas of operations research, economics, and organizational behaviour". Six courses are required for the option, and many of the candidate courses also count as CSEs. Within the option courses can also be grouped into themes: Operations Research, Information Systems, and Management of Technology.

The option in Water Resources is "for students interested in the development, management and protection of water resources". It includes courses on surface water, groundwater, wastewater treatment, fluids modeling, remote sensing, and management. There is exposure to hydraulic structures, water resource management, as well as the social and environmental aspects of water resources. They say the next major wars will be fought over water, so... you'll be the go-to people. Maybe.

There are also options in Software and Computer Engineering. These appear to be designed for students in ECE. There are also options in Physics, Statistics and Mathematics. These last three are for students who just can't get enough of those respective subjects and wish to add that level of depth to their degree. Yes, that's engineering with EXTRA math, EXTRA stats, or EXTRA physics. Your prayers have been answered, fellow students. Please place your gifts by the IW office, I will pick them up shortly.

In addition to the options offered in Engineering, with some work and extra time, options are also offered elsewhere in the University. There's the option in Cognitive Science, the option in Peace and Conflict Studies and the option in Society,

Technology, and Values, to name a few.

For the renaissance types, it is also possible to obtain a double major with Arts, and perhaps other faculties as well. Options are also available in other faculties for programs such as Peace and Conflict studies and Cognitive Science. This requires a lot of planning, and some negotiation with the Faculty of Arts. Many engineering credits are transferable towards an Arts degree, so another four years are not required. Minors are also possible. This is not treason. In fact, you will be unstoppable. You will be well versed in the humanities, and wrangle your way into the upper echelons of power with your Machiavellian manoeuvring and worldly knowledge. Then you will leverage your engineering decisiveness to bring sweeping positive changes in the world. No longer will the rest of the world dismiss you as some number-crunching dork. You will be on the light side and the dark side, like Lando Calrissian (watch Episode 1 of 'Undergrads'). As to which side you assign to engineering, the choice is yours. If you're an artsy engineer but not smart enough for Systems (like me), give this some consideration.

As you can see, there's something for everyone. Having an option, minor, or double major on your degree will present you as a well-rounded individual to a potential employer, which will make you undoubtedly stand out from the legions of standard-issue BAsC graduates they will be faced with. Or you may seem like a scatterbrain who can't figure out what to do with life, and scare employers away.

If you're interested in another major, minor, or option, it is important to start planning early which courses to take, and to get in touch with the Option Coordinator, or the respective faculty.

For details, visit:

http://www.adm.uwaterloo.ca/infocal/ENG/options_intro.html

"...an option, minor, or double major will present you as a well-rounded individual."

WEEF: What It Is And Why It Matters



MIKE SPENDLOVE
WEEF DIRECTOR

Welcome, young engineers, to your home for the next 4.666 years, and congratulations on getting into the best engineering program in Canada! Yes, UW engineers are the best. Doubt it? Look at our high employment rates, our expert and highly-qualified faculty and the dominance of UW student teams in international competitions; this past summer, UW teams have performed exceptionally well including UWAF (1st overall), WARG (2nd overall) and Formula SAE (4th overall).

There's no doubt UW's amazing engineering achievements are made possible by students' commitment, diligence, passion, intelligence, creativity and more, but what can help students realize their ideas and dreams is an infrastructure to fund and support student initiatives and priorities. This is exactly what WEEF is all about.

First, here's a WEEF primer for all those who missed (i.e. slept through) orientation:

WEEF stands for the Waterloo Engineering Endowment Foundation. It is

run by students and all funding decisions are made exclusively by students.

The goal of the foundation is to help enrich and improve undergraduate engineering education at UW.

Contributions are collected each term from undergrad students, alumni and recent graduates and kept in a professionally-managed endowment fund. Each term, WEEF uses most of the interest from

Warrior, Midnight Sun, Formula SAE, UWAF, WARG, EWB, ASIC and many more. The Student Shop and the WEEF lab have received significant amounts in the past.

Contrary to some rumours, WEEF does not relieve departments of buying equipment. Rather, WEEF gives money to student-identified priorities that would not otherwise be funded. For example, in the

and increases the value of your degree long after graduation!

Here's where you come in. Since all WEEF funding decisions are made by students, we need one WEEF representative from each undergrad engineering class to join the Funding Council and attend 2-3 meetings each term to help decide who gets the money. Not only is this a great chance to hear about all the cool equipment and technology being used by UW students, but you also get a nice (and free) supper. If you're keen to be even more involved, WEEF also welcomes student volunteers to help administer the foundation. Send us an email and let us know what sort of skills or ideas you would like to contribute. For more info, please check out our comprehensive website: www.weef.uwaterloo.ca and if you are interested in volunteering or being a WEEF rep, send an email to weef@engmail.uwaterloo.ca.

So, frosh, best of luck to you for the upcoming term. I encourage you to use these next few weeks to explore all that UW engineering has to offer. And if

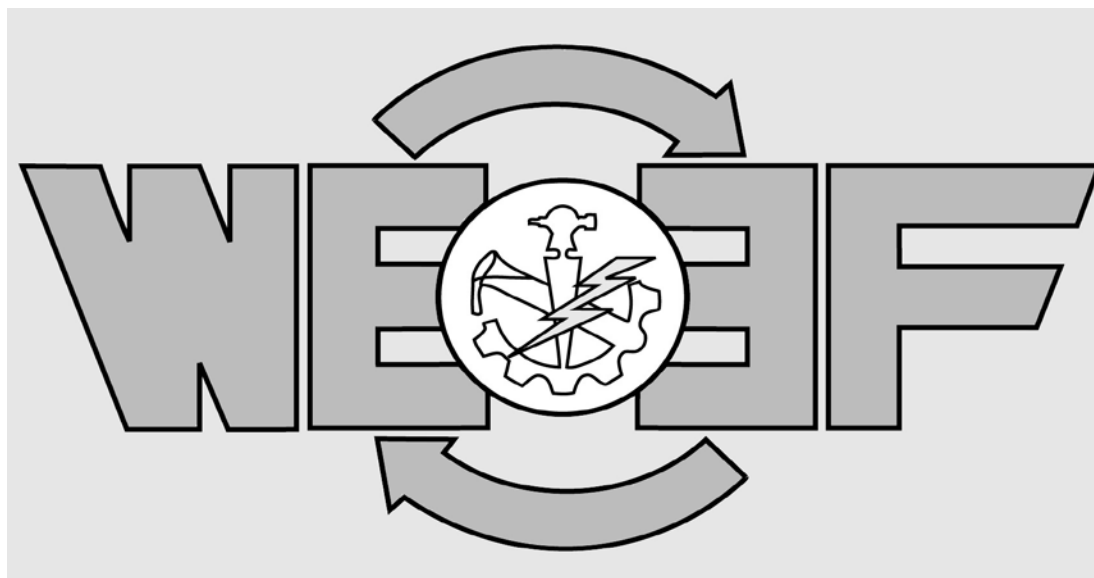
you're interested, try joining a student team or come to an EngSoc meeting. Both are great ways to meet other engineering students, have some fun, and even learn a thing or two...

this fund on student priorities. Currently, this works about to be around \$70K to \$90K a term.

The funding is split between the engineering departments and the student teams or organizations like Engsoc, the Iron

past this has included optical mice (as an upgrade from trackball mice) and some of the first wifi-access points in Engineering.

Having an endowment foundation ensures that the fund is always growing. This supports future engineering students



IEEE 101: Introduction To Cool Engineering Club

JOANNA MA
2B ELECTRICAL

Join the fun and excitement! Take part in the IEEE Student Branch!!! It's a club for engineering and math students like you! Come to the "Join the IEEE Student Branch!!!" General Recruitment Meeting on September 20th at 5:30pm in DC1302.

What is IEEE?

IEEE (pronounced: "Eye Triple E") is the world's largest non-profit technical professional association. It contains more than 365,000 members in 150 countries from all over the world. The full name is Institute of Electrical & Electronic Engineers, although it is more commonly referred to as the "Eye Triple E".

Although the name implies a society for electrical engineers, this is not necessarily the case. The IEEE is the a leading authority in a wide variety of technical areas such as computer engineering, biomedical technology, telecommunications, electric power, aerospace engineering, and consumer electronics, just to name a few.

Why join IEEE?

Everyone joins the IEEE for different reasons. The following are just a few common ones:

Knowledge – receive the award-winning IEEE Spectrum publication that includes current technologies and trends such as 3D displays, space elevators and even China's Technological Revolution.

Résumé – Employers like to see students who have a passion for technology, and what better way to show it than to join the world's largest technical professional association?

IEEE Societies - Keep up to date in

the latest fields of your interest, such as the Computer Society or Engineering in Medicine and Biology Society.

and the industry, we educate students on leading edge research in academics, current trends in technologies, and the skills needed to excel in the industry.



Waterloo's IEEE Exec gets goofy.

What is the IEEE Student Branch?

This is where you come in. Our functions are similar to that of a club, but we are the official student ambassadors of IEEE. It's completely free, and in return, you'll meet awesome people, learn valuable Job-Hunting & Career skills, gather technical knowledge and experience, and of course, eat free food.

The student branch is a group of enthusiastic students with a passion for technology and innovation. We strive to enrich the educational experience of students through the seminars and events that are planned throughout the term. Drawing from sources in both academia

Why join the IEEE Student Branch?

The reasons are endless, but, just to name a few...

Leadership - Help organize events and show leadership through planning an event from start to finish with the guidance of our experienced executive team.

Networking - Have the opportunity to contact professors and industrial professionals alike to open up career paths and get your name out there.

Fun, fun and more fun - Get to know the student branch members and enjoy the good times (especially the end of term party!).

IEEE Events

General Recruitment Meeting
Sept. 20th at 5:30pm in DC 1302

SPAC Career Conference
Sept 27th from noon to 5pm in DC1302

Resume Critique Workshop
Sept 29th from noon to 3pm (location TBA).

Nanotechnology Seminar
Oct 5th from 11:30am to 1pm in EIT 3151/3153

A.I. Contest
Early November (location & time TBA)

Genetic Imaging Seminar
Nov 1st from 11:30am to 1pm in DC 1304

End of term Dinner/Party]
TBA (Come to our events!)



Come One, Come All, To EngPlay Auditions!

JEN CARROLL
3B MECHANICAL

Attention all first year engineering students (and any upper year engineering students who don't happen to know about the EngPlay): we want YOU to audition for this term's engineering drama extravaganza!

Each term a group of crazy, sleep-deprived Waterloo engineering students get together to rehearse and perform what is affectionately known as the EngPlay. They've performed to sold-out crowds and rave reviews each term with plays such as Office Hours, Moonchildren, WASPS, Arsenic & Old Lace, and You Can't Take It With You.

The play for this term will be 'Beyond Therapy' by Christopher Durang, a comedy involving a pair of star-crossed lovers and their respective psychiatrists. It promises to be a crowd pleaser, but only with the right crew of actors and stagehands. And that's where you come in!

Anyone interested in auditioning can sign up on the Orifice door during the first week of school. Auditions will be held September 21st-23rd. No previous acting experience is required, and both large and

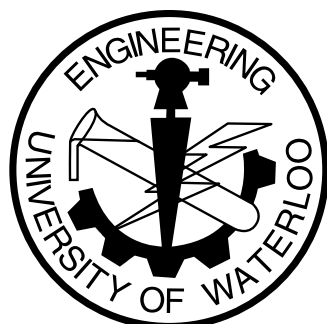
small parts are available. Check out www.eng.uwaterloo.ca/~engplay for a synopsis of the play, character sketches, and audition pieces.

For those interested in helping out on the production end of the play, we need you, too! The show needs a stage manager and a few good stagehands, as well as people to build the set and help with sound and lights.

For anyone interested in theatre, engineering drama is a great way to balance the horrible hours spent locked in your dorm room crunching numbers. It's a way to get to know other engineers who share a common interest with you. It's a way to beef up your resume. And most of all, it's a way to have a rockin' good

time! So come on out, we can't wait to see you there!

"...a great way to balance those hours in your room number-crunching."



Warriors Band

KHARY ALEXANDER
CHIEF CENTURION, WARRIORS BAND

Nearly 40 years ago, five students decided that they wanted to get into football games for free. Thus was born the Warriors Band.

Founded in 1966 by the immortal David Greenberg, Chief Centurion Number I, the Warriors Band is not your typical university musical group. We don't march (though we have been known to saunter in a musical manner), we don't have auditions and we don't take attendance. We are the University of Waterloo's official pep band and can be found at football games, basketball games, building openings, and anything else we can talk our way into.

Our primary objective is to have fun. By any means necessary.

Do you want to keep playing music, but don't have a lot of time? Did you ever want to learn an instrument but never had the chance? If so, we're just what you're looking for. Practices are one hour a week if you can make it (we understand that there are times when you really need to finish that last assignment) and instruments can be provided if you don't have one.

To join, come to PAC room 2012 (look in the squash court viewing galleries) any Thursday at 6:00 or talk to us at a game (we're the noisy ones with big shiny instruments).

For more information, see the band's website at <http://www.warriorsband.com>.

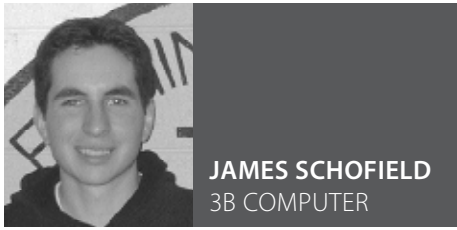
ENGINEERING SOCIETY



Did you know you can earn valuable P**5 points for volunteering time at the C&D? Email Mary Bland at mbland@gmail.uwaterloo.ca to schedule your shift.

The Wheels On The Bus

Getting Around Waterloo And Beyond



JAMES SCHOFIELD
3B COMPUTER

Welcome to UW! Over the next few days and weeks, you'll quickly become acquainted with your new surroundings. You'll figure out where to get the cheapest food on campus, you'll learn how to deal with the geese, and you'll have meticulously calculated the shortest route between your residence and your 8:30 class.

Although there's much to do on campus, there's also an entire city lying beyond the bounds of Ring Road, just waiting to be explored. Whether you're looking for shopping, movies, nightlife, or anything else, chances are, you can find it in Waterloo. Unfortunately, many frosh living in residence may go through the term without ever stepping foot outside of the campus "bubble", and miss out on everything else the region has to offer.

Because of its small size, it's quite easy to get around Kitchener-Waterloo, even without a car. While it's possible to walk or bike to many places, it's worth learning how to use Grand River Transit (GRT), the local bus system.

The transit system in Waterloo is improving every year. Beginning this fall, a new express bus service (known as "iXpress") will quickly whisk you from one end of Waterloo all the way to Cambridge, with stops at all the major points in Waterloo, Kitchener and Cambridge. Also new this year is a late night bus service on Thursdays, Fridays and Saturdays, running from downtown Kitchener to UW right up until 2 a.m. While you still won't find a bus coming every three minutes as in parts of Toronto or Ottawa, you will find a decent, reliable service that gets you to all the major locations in the city.

Cash fare to ride the bus is \$2.25, or you can purchase a strip of five tickets from the Turnkey Desk in the Student Life Centre for \$7.25, saving you 80 cents a trip. With any ride, you'll get a transfer valid on all bus routes for at least one hour – this lets you make a quick round trip for the cost of a single fare. If you live off-campus and plan to take the bus most days, a three-month pass, valid from September to November, is the way to go. Get it from the Feds office in the Student Life Centre for \$139.

Here's a sampling of some places you

can easily get to. Make the most of your time in Waterloo, and get to know the city. You'll be surprised what you might find!

Conestoga Mall

Not quite Square One, but it has a good selection of stores, including American Eagle, Campus Crew, Boathouse, Zellers and The Bay. Conestoga is also home to a Galaxy movie theatre, the largest one in Waterloo. Take the iXpress from the Davis Centre to get there quickly, or alternatively, take the #12 Conestoga Mall on University Ave, across the street from the main campus entrance. If you're heading to Galaxy to watch a movie, purchase a discounted ticket voucher from the Turnkey Desk in the Student Life Centre and save yourself a few dollars.

Uptown Waterloo

Kitchener has a downtown, but Waterloo has a lively uptown, centered around the intersection of King and Bridgeport. With lots of bars, clubs, and live music, not to mention karaoke at the Silver Spur, there's lots to take in here. There are also a slew of smaller, local stores and two movie thea-

"...there's an entire city lying beyond the bounds of Ring Road."

tres in the area: Princess Cinema shows foreign and indie films, while the Princess Twin features more mainstream titles. To get to Uptown, take either the iXpress or the #7 bus. Both travel along Ring Road, but the iXpress stops only at the Davis Centre, while the #7 makes all stops. Pull the bell near Princess St. and explore the area on foot from there. On Thursdays, Fridays, and Saturdays, getting home from a late night out is no problem, since the #7 runs until 2 am. On other days, the last trip leaves just after midnight.

St. Jacob's

St. Jacob's Village is a quaint Mennonite settlement located just north of Waterloo, and a popular tourist destination. In St. Jacob's, horse drawn carriages rule the road, and the streets are lined with plenty of local craft shops. Just outside of the village, you'll find the St. Jacob's Farmer's Market, open Thursdays and Saturdays. The market is a great place to buy some

fresh local produce and the best chicken nuggets you'll ever taste. If you have a bike, the ride up to St. Jacob's is quite manageable – just head north along either King or Weber and you'll find it about 5 km from Conestoga Mall. By bus, get yourself to Conestoga Mall (see above), and then take route #21, the "Country Run", which stops at the market and then continues on to the village.

Groceries

If you're not on a meal plan, you'll need to buy some groceries. Some residences run a shuttle van to Sobeys on weekends, but if you aren't able to wake up early enough to catch the shuttle, you'll need to get there on your own. From the villages, Sobeys at Columbia and Fischer-Hallman is closest by far. From UW Place, you can also easily access the Zehrs at Columbia and Erb, or the Valu-Mart at King and Erb. While these stores are within about a 15-20 minute walk from campus, hauling home a brick-load of groceries on foot isn't always the most appealing option. Sobeys is accessible by route #13, which stops across from UW Place on Phillip St., and across from the villages along Columbia St. To get to Zehrs, take the #12 Fairview Mall, which travels along University Ave. in front of UW Place and the main campus entrance. Finally, to make it to Valu-Mart, take either the #7 or the iXpress to Waterloo Towne Square, and you'll find it at the North end of the plaza.

Getting Home

As much as you might love your new city, you'll probably want to go home occasionally. If you're from the Toronto area, the Fed Bus is the cheapest way to get back for a weekend. You can purchase a ticket to one of several location in the GTA from the Feds office in the Student Life Centre. You can also get to Toronto by taking the Greyhound bus. Greyhound runs a few trips every day directly from UW to Toronto, and many more depart from downtown Kitchener at the Charles St. Terminal. Take the iXpress or any #7 bus to get to the terminal, and catch the Greyhound from there. VIA Rail also runs up to three trains a day to both Toronto and to London/Sarnia. If you're from Ottawa or Montreal, the train is likely to be the quickest and most comfortable way to get home, and if you purchase a "6-pack" of tickets, you'll save 50% off the full price. Get to the train station by taking the #7 bus to the corner of King and Victoria St. – the station is about a 5 minute walk east along Victoria from there.

Where Do You Want To Go Today?

The new iXpress service is an express bus between Conestoga Mall, UW, Uptown Waterloo, Downtown Kitchener, Fairview Mall, and Cambridge. Since it makes a limited number of stops, the iXpress is the fastest way to get around, but service is only provided until about 7 pm from Monday to Friday. On evenings and weekends, use the #7 or the #12 buses instead. On campus, the iXpress stops only at the Davis Centre.

Route 7 runs from campus to Uptown Waterloo, Downtown Kitchener, and Fairview Mall. The #7 is the highest frequency route in the city (a bus comes as every 7-8 minutes during rush hour), and as such, it also has the most confusing schedule. There are six different branches labeled 7A-7F. From UW, all variations go to Uptown Waterloo and Downtown Kitchener, but coming the other way, only the "7D U of W via University" and "7E U of W via Columbia" go to UW. The #7 comes right onto campus and makes stops all along Ring Road, with service until 2 am on Thursday, Friday, and Saturday, and until 12:30 am on other days.

Route 12 will take you from campus to Conestoga Mall. It also goes to Fairview Mall in the opposite direction, but takes a long roundabout route to get there (use the iXpress or the #7 instead). The #12 runs until 12 am, and stops on University Ave in front of the campus entrance.

Route 8, coincidentally enough, travels in a figure-8 pattern through K-W. It will take you to the Zellers Plaza on Bridgeport, and also goes to Downtown Kitchener and Fairview Mall, but again, it's a slower route. Take the iXpress or the #7 instead. The #8 stops on University Ave in front of the campus entrance.

Route 13 services a residential area North of campus, and stops at the Sobeys plaza. The #13 makes stops at the Davis Centre, DWE, Phillip St across from UWP, and along Columbia across from the villages.

Dog Burnings, Beer Towers, and Other UW Highlights



DAN ARNOTT
EDITOR-IN-CHIEF

1957 – UW is incorporated as the Waterloo College Associate Faculties (Waterloo College will later become known as Waterloo Lutheran University, then Wilfrid Laurier University). The name was changed to University of Waterloo in 1960, with an enrollment of 75 engineering students.

1958 – The Great Beer Tower Caper. One night, three engineering students sneak up the old Lester Street water

tower and paint the word "BEER" on the side, gaining nationwide recognition.

1968 – The Ridgid TOOL is introduced as the official mascot of the UW Engineering Society.

1968 – The infamous Dog Burning. Students protesting the Vietnam War say they are going to 'burn a dog' in the Arts Quad. When the time comes, and hundreds of outraged, supportive, and intrigued students are watching, they pull out a single hot dog and roast it.

1974 – Current KW Liberal MP Andrew Telegdi is elected as Feds president. During his controversial term of office he gets banned from Renison and

encourages student activism.

1979 – As a joke, the Gazette publishes a list of the ghosts of UW, including ones that haunt the elevators in Dana Porter Library. Staff members get so scared that a memo must be posted explaining that it was only a joke.

1982 – The University of Toronto steals the TOOL and, after much negotiation, returns it encased in a barrel of concrete. Frosh chip it out just in time for the Iron Ring ceremony.

1989 – Students gather outside Needles Hall (then the home of Co-op Services) to protest the fact that dozens of companies hiring UW students are involved in military work.

1992 – The 20-year-old Honeywell computer in MC is turned off forever. It is reputedly haunted- an exorcism is performed.

2003 – The non-existent UW Medical school is ranked highly in a Globe and Mail survey.

There's more interesting stuff to be found at www.adm.uwaterloo.ca/infoipa/history.htm.

This includes the peacocks that used to roam UW and presumably were eaten by foxes. And "Convolution", the ugly piece of art that got blown up. And the secret network of tunnels, which are not as non-existent as everyone thinks.

IRON WARRIOR FOODS SPECIAL

Since the Frosh Issue is a collaboration between the A-Soc and B-Soc Iron Warrior staff, we have the privilege of featuring columns from two of our fantastic food writers- Cindy Bao formerly of B-Soc and Carolyn Sutherland from A-Soc.

-DA

Cindy's Kitchen: Comfort Food!



CINDY BAO
4A ELECTRICAL

First of all, let me be the two-hundred-and-seventy-sixth person to welcome you to Waterloo Engineering.

Now the scenario I am presenting you with most likely will occur a little while from now, after you settled down into your residence, bought your books, attended your lectures and got lost in all of the subjects. It's the food, more specifically the lack of the comfort from the food mom used to make. Whether you just can't stomach the cafeteria food anymore or have exhausted your bank account eating at the Plaza (time to frequent the C&D, really), it's never a waste of time to know how to cook a decent meal or two. As a result, there are two tried and true recipes of mine that I am more than happy to share.

Guacamole

Guacamole is one of my all time favourites. It is very easy to make and all the vegetables leave me with no guilt for enjoying it. Sure you have heard how important it is to eat healthy from the Health Services, Counseling, everybody and anybody.

The dish is quite versatile as well. Serving it with corn chips is great for snack for late night studying; spreading it on a toasted bagel can make a light lunch. Did I mention that North Americans consume more avocados during the Super

Bowl season than any other time of the year just because of guacamole?

While avocado and lime are the musts, other ingredients are much up to you. For example, I prefer red onion in the summer, because of its sweeter taste, but any other onions will do just fine, including green scallions. Some variations call for 2 tablespoons of salsa instead of tomatoes. Parsley can be used instead of coriander. It also depends on your personal preference whether you want your avocado smooth or chunky.

- 1 medium ripe tomato
- 1 large ripe avocado
- 2 tbsp chopped sweet red pepper
- 1/4 cup chopped onion
- 2 chopped fresh parsley
- 2 tbsp lime juice
- Salt and pepper to taste

1. Seed tomato and cut into small dice
 2. Cut the avocado in half lengthwise, remove the pit, and scoop the flesh out of the skin.
 3. Add all the ingredients to a bowl.
 4. Blend with a fork until the mixture is just slightly lumpy or as desired.
- Makes 2 servings

Stovetop Macaroni and Cheese

The stress of university life requires comfort food and nothing seems more so than good old macaroni and cheese. No, I am not talking about packaged Kraft dinner, but the real thing, made from scratch. And it is really not as difficult as the Physics 115 midterm.

This stovetop version is fast and easy. However, you can bake it too. After stir-

ring the cheese into the milk, in a buttered baking dish, mix half of the mixture with the cooked macaroni and sautéed ham and vegetables, and then pour the remaining cheese on top. Then top the dish with the mixture of 1/2 cup bread crumbs and 2 tablespoon butter. Bake at 350 degrees in the oven for 30 minutes, or until the cheese is bubbly and the topping golden brown.

- 3 tablespoon canola oil
- 1 cup diced ham
- 1 green pepper, diced
- 1 medium cooking onion, diced
- 6 large button mushrooms, diced
- 1 tablespoon butter
- 2 teaspoon flour
- 1 1/2 cup milk
- 2 cup shredded cheddar cheese
- 2 cup dry elbow macaroni
- Salt and pepper to taste

1. Cook macaroni according to package direction, and drain well.
 2. In a large saucepan or skillet, heat the canola oil on high heat, and then add ham, green pepper, onion and mushrooms, sauté until the green pepper is tender. Set aside.
 3. In a large saucepan, melt butter, and stir in the flour until well incorporated and free of lumps.
 4. Add milk into the butter and flour mixture; bring to a boil, then lower the heat to keep the milk at a simmer.
 5. Stir in the cheese until melted, then add the macaroni and ham and vegetables, stir well and make sure everything is heated through. Season as desired.
- Makes 4 servings

Hey Frosh, need a job?

JEN CARROLL
3B MECHANICAL

If your answer to the above question is yes, you should most definitely consider checking out EngSoc Resume Critiques. Why? Well, it's not that your years of babysitting experience and your major bowstaff skills aren't key points to include on a resume, but other students who have been through co-op a number of times can help you find ways to change babysitting to "small child management experience" and bowstaff skills into "flexibility in all walks of life".

When co-op applications start in the second week of the term it's important for you to have your resume ready to go and uploaded to the co-op webpage. CECS (Co-operative Education and Career Services) usually offers "Resume Blitzes", and concurrently, the Engineering Society offers our Resume Critiques. The difference between the two sessions is the people critiquing. At the Resume Blitzes, CECS employees will critique your resume. These employees are sometimes other students from other faculties. At the EngSoc Resume Critiques, an upper-year engineering student will read over your resume with you. Both sessions can offer you different tips to create the über-resume. In general, the employees at CECS are great at giving advice on resume layout, presentation, and good key words. The engineering students at EngSoc Resume Critiques have more experience applying to engineering co-op jobs and can offer more engineering-specific tips for your resume. Basically, attending both sessions will help to make your resume as well-rounded as you are!

So, between now and the second week of school, get a resume together. If you've never created one, take a look at the CECS web pages for advice. Think about what job experience you have, places you've volunteered, clubs or teams you've been a part of, and anything else that you are proud of or feel it would be important for a potential employer to know. Try to be concise and to the point and if you notice you've used the same word three lines in a row, take a look at a thesaurus. Once your resume is ready to go, find out when the CECS Resume Blitzes are and plan on going to one of those. Also, keep an eye out around the engineering buildings for posters telling you when and where EngSoc Resume Critiques will be held.

Good luck in your job hunt, and I hope to see all of you at EngSoc Resume Critiques!

Charobeam Cooks: Nanaimo Bars!



CAROLYN SUTHERLAND
2N MECHANICAL

Hello Frosh! Who among you does NOT enjoy a nanaimo bar every once in a while? Not only are these tasty treats a Canadian creation, but their name comes from the town of Nanaimo in British Columbia. The following recipe is a more health-conscious version since you'll all have to watch out for that blasted Frosh Fifteen!

Nanaimo Bars
Serves 16

- 146 calories 7.2 g fat
- 1 cup graham cracker crumbs
 - 1/4 cup chocolate chips
 - 1/8 cup shredded coconut
 - 1 tbsp water
 - 1 pkg vanilla instant pudding mix
 - 1 cup skim milk
 - 2/3 cup light whipped topping
 - 4 oz. semi-sweet chocolate
 - 4 tbsp margarine
- 1) Line an 8x8 baking pan with parchment or waxed paper.
 - 2) Combine graham cracker crumbs, chocolate chips and coconut, preferably using a food processor. Add 3 tbsp melted margarine and water. Stir well.
 - 3) Pour the mixture into the pan, ensuring it is even throughout. Place in freezer for ten minutes.
 - 4) In a bowl, whisk together pudding

mix and milk until firm. Add whipped topping. Spread evenly on top of chilled crust and place back into fridge for 45 minutes or till firm.

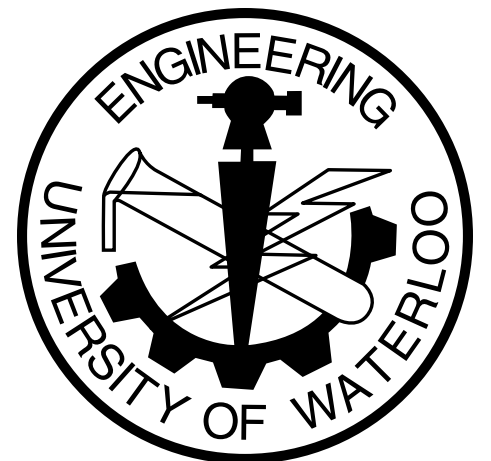
- 5) Melt baking chocolate and 1 tbsp of margarine in microwave and CAREFULLY pour and spread over pudding layer. Place into refrigerator until set (about 5 minutes). Yields 16 servings.

Yes, it's somewhat time-consuming, but I assure you the end result is worth every minute spent waiting for the stuff to chill in the freezer! If you're a thrill seeker at heart, consider <http://www.cognition.org/nanaimo.htm> for some tasty (and alcoholic) variations. Hope you all settle in nicely at Waterloo and I look forward to seeing you all during Frosh week!

An architect, an artist and an engineer were discussing whether it was better to spend time with the wife or a mistress. The architect said he enjoyed time with his wife, building a solid foundation for an enduring relationship. The artist said he enjoyed time with his mistress, because of the passion and mystery he found there. The engineer said, "I like both."

"Both?"

"Yeah. If you have a wife and a mistress, they will each assume you are spending time with the other woman, and you can go to the lab and get some work done."



FEDERATION OF STUDENTS/CECS

New FEDS Service for International Students

BRANDON SWEET
FEDERATION OF STUDENTS

The Federation of Students is pleased to announce the creation of the International Student Connection, a new service to be delivered to the students of the University of Waterloo. "The service's mandate is to respond to the needs of our international students, especially as the contingent of International Students is making up an increasing percentage of the student body as a whole" says Lawrence Lam, Federation of Students Vice-President Internal. "We are very excited to finally have visible representation on this campus. The International Student Connection will strengthen links between international students and give Canadian students a chance to meet people from all around the

world," remarks ISC Service Coordinator Gerardo Salas. The Federation of Students expresses their gratitude to the University of Waterloo for their generous support of this initiative.

The new service will begin the new school year with a kickoff barbecue on September the 11th and the office will be open as of the first day of classes. The International Student Connection office will be located in the University of Waterloo Student Life Centre, Room 2124 and can be contacted at 519-888-4567 x7872.

The Federation of Students provides services to over 20,000 undergraduate students at the University of Waterloo. There are currently over 1300 international students in the UW population.

Ontario/Millennium Grants

BRANDON SWEET
FEDERATION OF STUDENTS

Students at Waterloo and across the province applaud the provincial government and the Canadian Millennium Scholarship Foundation for their announcement today of the establishment of the new Millennium/Ontario Access Grant, according to the University of Waterloo's Federation of Students. The new grant program is an important step towards improving accessibility of low-income students to post-secondary education.

"These new grants will help counterbalance tuition fees that have more than doubled in the last decade. Targeting grants to those who need it, levels the playing field for all Canadians irrespective of family income," said John Andersen, President of the University of Waterloo Federation of Students.

The grants will provide eligible students up to half the cost of their tuition to a maximum of \$3,000. When combined with the Canada Access Grant – the federal government's new low-income grant – these students can receive up to \$6,000, or the full cost of their first year of tuition. The new grant is in addition to the \$108 million in Millennium bursaries the foundation has been distributing annually to Ontario students since 2000.

"We are pleased to see actions taken to reduce financial barriers for low income students. However, the provincial government must also continue to carefully control student costs," said Howie Bender, Vice President Education. "The province needs to address tuition costs by introducing a permanent effective freeze on tuition fees to keep our universities accessible and affordable for Ontario's families."

CECS IMPORTANT DATES

September 13-15:
Return to Campus Interviews

September 13:
Part-time Job Fair, 12 noon -2 pm, Great Hall SLC

Career Services Workshops: Starting Your Own Business - The Basics: This workshop will help you assess your readiness to start a business venture, and show you how to convert an idea into a commercial opportunity. Register online at www.careerservices.uwaterloo.ca, 4:30-6:30 pm, TC 2218

September 14:
Volunteer Fair, 11 am -3 pm, Great Hall SLC

September 15:
Career Services Workshops: Introduction to Career Services Online Modules: Learn how to access and benefit from our new online modules on Resume Writing, Interview Skills, Work Search (including Job/Career Fair) and Success on the Job. NOTE: In order to participate effectively in face to face assistance (workshops and appointments) completion of the online modules for the above topics is an important first step. The modules can be accessed by going to www.cdm.uwaterloo.ca and accessing the UW student version of the Career Development eManual (in ACE). 3:30-4:30 pm, TC 2218

Career Services Workshops: Starting Your Own Business – Next Steps: Picking up where "The Basics" left off, this workshop will offer a more in-depth discussion on start-up issues: strategy and operational tactics, marketing, finance, human resources, R & D. NOTE: This session is limited to 20 participants. Register online at www.careerservices.uwaterloo.ca, 4:30 – 6:30 pm, TC 1208

September 20:
Work Reports due by 4 pm (some faculties differ- check with your undergrad office)

September 21:
Career Services Workshops: Introduction to Career Services Online Modules: Learn how to access and benefit from our new online modules on Resume Writing, Interview Skills, Work Search (including Job/Career Fair) and Success on the Job. NOTE: In order to participate effectively in face to face assistance (workshops and appointments) completion of the online modules for the above topics is an important first step. The modules can be accessed by going to www.cdm.uwaterloo.ca and accessing the UW student version of the Career Development eManual (in ACE). 3:30-4:30 pm, TC 2218

Career Services Workshops: Letter Writing: Learn how to use letters to your advantage in the job search. Register online at www.careerservices.uwaterloo.ca 11:30-12:30, TC 2218

September 22:
Job Postings Open (closes Sunday)

Career Services Workshops: Law School Bound?: Hear about best practices to prepare an effective law school application presented by John Richardson, lawyer, author and provider of professional test prep and admissions programs. Register online at www.careerservices.uwaterloo.ca 1:30 – 2:30 pm, TC 2218

Career Services Workshops: Teaching English Abroad: Find out about TESOL certification, the relationship between a certificate and employment, skills required to teach ESL, jobs, etc. Presented by John Richardson (Toronto), lawyer, author and provider of professional test preparation

and admissions programs.
3:30-4:30, TC 2218

September 23:
Job Postings Open (closes Monday)

Career Services Workshops: Letter Writing: Learn how to use letters to your advantage in the job search. Register online at www.careerservices.uwaterloo.ca 2:30-3:30 pm, TC 2218

September 26:
Job Postings Open

Career Services Workshops: Introduction to Career Services Online Modules: Learn how to access and benefit from our new online modules on Resume Writing, Interview Skills, Work Search (including Job/Career Fair) and Success on the Job. NOTE: In order to participate effectively in face to face assistance (workshops and appointments) completion of the online modules for the above topics is an important first step. The modules can be accessed by going to www.cdm.uwaterloo.ca and accessing the UW student version of the Career Development eManual (in ACE). 4:30-5:30 pm, TC 2218

September 27:
Job Postings Open

Career Services Workshops: Thinking about Graduate Studies?: Learn the steps to apply to graduate and professional schools. Program research, applications, references, interviews and the admission process will be discussed. Register online at www.careerservices.uwaterloo.ca 2:30-3:30, TC 2218

Career Services Workshops: Mastering the Personal Statement: Learn how to write a winning personal statement for applying to graduate and professional school programs. Register online at www.careerservices.uwaterloo.ca 3:30-4:30, TC 2218

September 28:
Job Postings Open

Career Fair, 10:00am-3:00pm, RIM Park, Waterloo

September 29:
Job Postings Open (closes Sunday)

Career Services Workshops: Interview Skills: Preparing for Questions - Discuss and learn from taped excerpts of actual interviews. NOTE: Since the activities included in this workshop build on the material presented in the new online Interview Skills module of the Career Development eManual, you will need to complete the online module as a first step before registering for this face-to-face workshop. To access the module, go to cdm.uwaterloo.ca and select the UW student version of the Career Development eManual (in ACE). 4:30 – 5:30 pm, TC 2218

September 30:
Job Postings Open (closes Monday)

Career Services Workshops: Interview Skills: Selling Your Skills - Don't stop at the fundamentals; you must also prove your skills in the interview. Here is your opportunity to practice and improve. NOTE: Since the activities included in this workshop build on the material presented in the new online Interview Skills module of the Career Development eManual, you will need to complete the online module as a first step before registering for this face-to-face workshop. To access the module, go to cdm.uwaterloo.ca and select the UW student version of the Career Development eManual (in ACE). 2:30 – 4:30 pm, TC 2218



Why Not The Best Five Years?



ALICIA LIU
3B COMPUTER

There is a saying at Waterloo that your undergraduate careers in Engineering will be the hardest 5 years or the best 7 years of your life. I don't think that is a fair choice anyone should have to make. I'm going to outline a few simple strategies that I've learned along the way and seen practiced by successful students I have met, which hopefully can help you be a successful student without sacrificing your social life. These are just common sense, but it's really easy to forget even simple things under the crush of deadlines and social obligations. They're not necessarily easy to accomplish, it takes willpower, but it's within everyone's capacity.

Exercise five times a week. Exercise is one of the first things to go when the school work gets busy, but don't let it ever become optional. Build it into your routine as nonnegotiable as brushing your teeth. You'll be rejuvenated and have much more energy and concentration for school work, and best of all, the endorphins will make you happy, a crucial asset during the dreary winter months. I don't think I need to mention the benefits of looking good. So take advantage of the facilities that you already paid for.

Don't waste your Sunday. It's so easy to sleep deep into Sunday, due to excessive partying on the weekend, but resist that temptation. Get up at your usual time, it's just as bad to oversleep as under-sleep, as you'll be groggy for the rest of the day. Have a full breakfast, read the news, go for a jog, do your laundry, get some groceries. Take some time to plan out your

week. There are so many things you can accomplish. You will feel much more productive than your roommate who drags out of bed disheveled at 1 in the afternoon, and wastes the rest of the day watching the Britney and Kevin marathon. You'll have a running start on the week, and make Mondays much more tolerable.

Have fun. This might seem like unnecessary advice, but it's actually very important. You frosh year might seem like an endless assortment of pranks and hijinks, but as you progress into your upper years, you need to actively seek out fun. Go on a road trip, organize a prank. Remember this is your youth.

Spend time studying alone. The way to learn really difficult material is to go over it by yourself until you really understand

it. Group study sessions with your friends can easily turn into socializing sessions, where you don't learn what you're supposed to. After you've grasped the concepts, then go over it with your study partners, who can fill in things you might have missed, and vice versa.

Get involved. Whether it's with a student society, or any one of the various campus clubs, you will meet different people, and broaden your social circle, plus get the good feeling that comes with contributing. You get what you put it into it.

Plan your free time. Just like you would plan out time to study, you should proactively set time for recreation. Don't sacrifice your hobbies. Being stressed out will only work against you and be bad for your mind and health. Don't sweat the small stuff. There are times when you will feel that all the professors and TA's are in a big conspiracy to work you to death with impossible amounts of course work, but take a deep breath, because that 1 extra percent on your course grade won't matter in the long run.

Cheers, and enjoy your 5 years at Waterloo.

"...as you progress into your upper years, you need to actively seek out fun"



Nothing like a gratuitous picture of the TOOL to liven up the page.

Q: What is one difference between Mechanical Engineers and Civil Engineers?
A: Mechanical Engineers build weapons, Civil Engineers build targets.

ProfQuotes, IW Style!

"All of this is balanced out so things can survive and not explode- you can quote me on that."

-Emelko, ENVE 276

"Of course, it's illegal to deface currency. So we used an American quarter!"

-Brodland, ENVE 224

"You have a processor, a serial port, three parallel ports, a partridge and a pear tree."

-Loucks, ECE 324

"... in hope that I can live longer than my wife, so I can play with the toys and spend all the money."

-McKay, MSCI 442, referring to why he wears a heart monitor

"It's like stopping in the middle of brain surgery and taking the next three weeks off. You don't want to interrupt these things."

-Heunis, ECE 342, contemplating interrupting an example

"You can kill your kids or your kid's kids. But you cannot quite kill your uncle."

-Seviora, ECE 354, referring to the usage of the UNIX command "kill -9"

"Marking here is like diving or figure skating: we take degree of difficulty into account but without the French judge."

-McKay, MSCI 442

"I am going to use a colourful example. You can have safe and unsafe sex. You can have unsafe sex and nothing may happen."

-Seviora, ECE 354, illustrating an analogy for safe/unsafe state for resource allocation denial

"The president knows there is a janitor, but the president does not know what he does with the broom."

-Seviora, ECE 354

"Do you kill the fattest guy? Do you kill the skinniest guy?"

-Seviora, ECE 354, making a desert island analogy to process suspension in starvation situations

"What's 0.2 Volts among friends?"

-Sedra, ECE 332

"This is too hard to prove, so in the spirit of engineering..."

- J. West, SYDE 211 (MATH 218)

(talking about Pi Day)

West: "They should give out crazy pies."

Class: "Why?"

West: "Because it's irrational!"

"Get used to the curvy lines, it's part of growing up."

- J. West, SYDE 211 (MATH 218)

(graphing a vector function) "So this line is like the Great Wall of China, nothing can get pass this... actually I have no idea what I'm talking about."

- J. West, SYDE 211 (MATH 218)

"If you have 5 aces in your poker hand, no one wants to play with you."

- C. Springer, SYDE 213 (STAT 230)

You either get people squared or square

people and I don't want to meet you in either case."

- C. Springer, SYDE 213 (STAT 230)

"This always happens in a course: we learn something in the beginning and when we get to the end, we find it might not be useful!"

- H. Tizhoosh, SYDE 223

"This can be useless in many, many applications."

- H. Tizhoosh, SYDE 223

"Let's take a break, so you forget about the equations. Then we can come back and think about them again."

- Jayaram, ECE 362

"There's no way the MTO would allow tractors on a 400-series highway."

- Whitelaw, ERS 241

"The federal and provincial governments have been trying to harmonize for some time, but it's just like two big, testosterone-driven men in a room."

- Whitelaw, ERS 241

"You just have one of those faces that is easy to pick on"

- Emelko, ENVE 276

"May your teeth fall out and your nose hairs fall in knots!" (When talking to those students who did not do their homework)

- Dube, FR 192A

"Aren't chemistry words awesome? My wife doesn't ask me to talk dirty to her at night, she asks me to talk chemistry to her. Damn."

-Steve Forsey, Chem 38

(after talking about polycyclic compounds and how they are in smoke) "Smoking cigarettes is bad. Weed? That's bad too, probably worse, because there is no filter. You might as well just have it in brownies"

-Steve Forsey, Chem 38

"I can see that this vibrating beam makes you excited"

-Stanislav Potapenko, CivE 331

ENGINEERING
SOCIETY



Did you know you can earn valuable P**5 points for volunteering time at the C&D? Email Mary Bland at mbland@gmail.uwaterloo.ca to schedule your shift.

ARTS

JACLYN SHARP
1B MECHANICAL

JACLYN'S FROSH WEEK THEMED
CARTOON



Water

JOHN OLAVESON
3B CIVIL

A water drop hits my head,
As I pass beneath a tree.
It soaks me through,
Douses me in vibrant liquid,
Washes me into the gutter
And drags me down to the wastewater treatment
plant.
Swirling twirling turbines
Chew my bones apart.
My pieces fall to the bottom of a sedimentation
tank, mix with a million molecules of chlorine,
And end up as fish fodder
In a faraway chemical dumping zone.
Recycled through time,
Eaten by fish, foxes and fleas.
It's all the same to me now,
An inanimate package of parts,
Worn and weary,
Floating in a cesspool of silt
And limestone deposits.
Time turns me to peat, to coal,
To a brilliant diamond gleaming in the deep darkness
in the earth's heart,
To be turned into a jewel in a wedding band worn
once, and lost down the drain.

editorial

haikus

last day of work term
iron warrior deadline
august 26th

a-soc just left town
b-soc not yet back in town
editor's alone

the cherry blossom
its beauty is far sur-
passed
by the coffee bean

is a submission
better late than not at all?
only time will tell

Six
Two million thumbs
can't be wrong.



A wireless career – are you Engineered for it?

If you are a Co-op Student or a New Grad looking for the chance to get in on the action with a company that uses leading edge technology to produce cutting edge wireless solutions, you should join the team at Research in Motion® (RIM®). As the creators of the revolutionary BlackBerry® wireless solution, RIM is no stranger to innovation and entrepreneurial spirit, and we're growing so fast that our subscribers have tripled in the last year. That is why we are looking for people like you to join us as we continue to expand and search for new and exciting ideas.

Go to www.rim.com/careers to apply for the many high profile Co-op and New Grad opportunities we have to offer.

**Wireless Co-op Student and New Grad opportunities in Waterloo,
Mississauga and Ottawa are open. Are you?**



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www.rim.com/careers