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Iron Archives:
Engineering traditions, Tuition fees,
Co-op & Faculty Expansion

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**The Olympics - A Design & Techno-
logical View**

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The Brew Man Group:
The Lager

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<http://iwarrior.uwaterloo.ca>

UW Hosts Ontario Engineering Competition 2010

**ALESSIA DANELON
& KEVIN LING**

2N MECHANICAL & 2T COMPUTER

The weekend of January 29th saw the ingenuity of many individuals as students from across Ontario gathered at the University of Waterloo for the Ontario Engineering Competition (OEC). This year marks the 31st annual OEC, showcasing competitions in the categories of Junior Team Design, Senior Team Design, Consulting Engineering, Engineering Communications, Parliamentary Debate and Innovative Design. Each competition featured a vast array of students, all eager to bring their ideas, inspirations and talents forward, but only the top two in each category advance to compete at the Canadian Engineering Competition (CEC).

Competitions were not the only highlight of the event, there was also a Career and Graduate Studies Fair going on in the University of Waterloo's Davis Centre for most of Saturday. Sponsors, Innovative Design teams and Graduate schools set up their booths along the DC Foyer to attract the interest of the participants and observers. The DC Foyer also acted as the "main hub" of the conference, and was authentic in its live video feed on a screen visible from the main hallway in the DC. This new feature meant that even though people could not physically be at all the events at the same time, they could get brief updates. Thrilling information on each team's status was given by the news anchors, Devin Cass, Peter Kelly and Scott Rankin, all vis-



UW Team working hard on the assigned problem

Mike Seliske

ible to the majority of the observers from the convenient main hub location.

Despite the ability to see many of the events from the ongoing video feed, the real action was in the collaboration and team work that went on before most of the final presentations. For both the Senior Design Competition and Consulting Engineering Competition, contestants had to work over night on Friday into the wee hours of Saturday morning. Those in the Senior Design category were responsible for building a model that would descend into a

simulated mine, attain a desired rock specimen, and come back to ground level with the specimen intact. This event was filmed by a crew from the Discovery Channel, who followed different teams as they went through the different stages of the competition. This year there was a very large turnout to the Senior Team Design prototype demonstrations and presentations. There were a number of local observers and a few from the GTA region who drove in just to get an idea of what engineering is all about. Waterloo A and B both presented great de-

signs, one of which functioned fully, and one which did not. In the end, the first place award for Senior Team Design went to the team from Laurentian University and the winners of the Consulting Engineering category were the engineering students from The University of Western Ontario. One of the teams representing Waterloo B Society came in second place in Consulting Engineering and will also be moving on to represent our school at the CEC in March.

They weren't the only ones to take home awards though. The University of Toronto took home the first place prize for Junior Team Design where competitors were tasked with creating a prototype to carry small logs of wood from one point to another, through a simulated lake. One of the Waterloo teams had a rather

ingenious design using one motor and "four wheel drive" through the gear workings of elastic bands. Quite differently, another team also representing Waterloo created a rover with only two wheels located at the front and back end that slid along the ground. Both teams used paddle flaps on the wheels for propulsion through water. The University of Waterloo had a very strong representation in this category and one of the teams won third place overall.

See OEC 2010 on Page 3

Know Your Candidates: FEDS Elections Coming Up!

AMRITA YASIN
3B CHEMICAL

FEDS annual elections are held in the winter term for election of positions starting in summer for the next 12 months. Campaigning period is under full swing and candidates are doing their best to convince the student body of the sincerity of their words and are confidently answering questions from the media (*Imprint*, *MathNews*, and *Iron Warrior*) during debates and forums. *The Iron Warrior* attended one such debate held on January 29th at 12:30 pm in SLC Great Hall. It was presided by the current VP Administration and Finance, Chris Neal.

Of the positions being elected, of interest to Engineering students are President, Vice President Administrative & Finance, Vice President Internal (Executive Positions), and At-large Senator (Senator Positions). In the Executive Positions, Nicholas Soave (Geography & Environmental Management) has been acclaimed as the Vice President Education. Engineering Student Council position has been acclaimed by Jordan Liu, Praveen Arichandran, and Trevor Jenkins.

Candidates for President are Allan Babor, Bradley Moggach, Jessey van Amerom,

and Matthew Colphon. Allan, an Independent Studies student is running for re-election as President. His slogan is 'Leader who Listens' and he commits to continue addressing students' concern as he has done in the past term such as improving athletics and initiating the Northdale development project. Brad is a Political Sciences and has served as ASU President. His focus is to improve student experience on campus with construction of a student service complex and also by preserving the green space on campus. Jessey, a Philosophy student has had experience with FOC and Bombshelter supervision and believes in outreach to students to understand their concerns by having digests and blogs that all students can contribute to. Matthew is a Science and Business student who has volunteered with FOC, and SBSA. He believes in bringing more relevant issues from students to the administration. He also wants to redefine the roles of councillors and work together with departments to better represent the students. As expected Presidential debates were the lengthiest. Most of the questions asked were in relation to Babor's decisions in his role as the current President and he was accused of convincing students of administration's message rather than relaying students' concern to the administration and

of unnecessarily favouring his peers, which he rejected by providing due references.

Candidates for VP Finance are Sarah Cook and Matthew Waller. Sarah Cook is a student in Business and Human Resource Management. She is the current FEDS VP Internal and has also served as acting VP Finance. She has also served as the Chapter President of UW's EWB. Matthew Waller is a Political Science student who is currently serving as FEDS Board Member and Student Councillor. Most of the questions directed at these candidates focussed on Bombshelter Pub as it has been going into deficit. Waller was also accused of negligence as Chair of Arts Finance - he replied by saying that the miscommunication which led to that situation should not be taken as a reflection of his behaviour.

Candidates for VP Internal are Nikki Best and Jenna Goodhand. Nikki Best is a Legal Studies and Human Resources Management, who has served as ASU VP Academic, Legal Student Society President and Residence Don. Nikki's emphasis was on improvement of student services, such as counselling and more accessibility for physically disabled students. Nikki is running on the ticket of Team Yellow with Sarah Cook and Bradley Moggach. Jenna Goodhand is an Arts/Business student, running on Team

Everyone ticket. Her belief is that FEDS can improve its experience through student feedback and representing students is the gist of being VP Internal.

Candidates for At-large Senator are Iyino-luwa Aboyeji, Reemah Khalid and Yousif Al-Khder. Aboyeji was not present at the Media Forum but had sent a written speech which outlined his platform to provide more resources to the student body. Reemah is currently Arts Councillor, Arts Senator and Student Ambassador. In her answers to the media questions she said that she would keep students involved through various media outlets and one-to-one interaction to ensure that she receives student input as much as possible. Yousif is highly involved in the Engineering Society and has represented UW at its satellite Dubai campus. He believes that in order to make students' voice strong on Senate students should build a stronger relationship with faculty.

I highly encourage you all to visit <http://vote.feds.ca/> and read the candidates profiles. If you have any specific questions I encourage you to attend The Annual Executive Debates and Forum on February 8th, 3:00 pm at SLC Great Hall. Polling period starts on February 9th and ends on February 11th. Remember these people represent you so choose wisely!

Letter from the Editor



Dear IW page # 2,

It's finally snowing, and despite being practically dormant during winters and cursing the winter weather every year for as long as I can remember, I am surprised at myself this season for missing the extreme cold and being so delighted on seeing snow. School has taken its toll and amid assignments, quizzes, and lab reports (Thank God no midterms yet!) here I am, writing my editorial. After a count of 5 for people who have missed actually attaching an attachment to their emails, I am very close to being done. I am sure you will enjoy this issue as much as you enjoyed the last one, and you know where to knock the door if you don't.

This issue covers Ontario Engineering Competition, hosted by University of Waterloo this past weekend, articles on UW's new features including UW YouTube channel, New Digital Media Institute and redesigning of the UW homepage. We also have our regular features, Iron Archives, Research at Waterloo, movie review, Future of Gaming, a column by the Brew Man Group, The Fashion Files, and a column by Chad Sexington. Starting this issue, we will also have a column on health and fitness. We also have a variety of articles on the Winter Olympics and a very friendly column discussing things you can do during the reading week, contributed by some of IW staff members. This issue also covers FEDS Elections briefly – the polling will start on February 9th and end on February 11th, I highly encourage you all to vote in these elections.

Before I move on to my editorial I would like to share some experiences and thoughts. As I mentioned, OEC took place in UW and since the event majorly took place between DC, DWE and RCH, there were many students passing by the IW office in E2 on Saturday. I personally felt very regretful not to have ever taken any initiative to participate in any cross-university activities. This is definitely going on my things-to-do list and I advise you all to participate in such events at least once too. Later in the day, I roamed around the buildings for *Iron Inquisition* and realized it's a very enriching experience; you get to meet so many new people and see all kinds of ideas and projects that people are working on. Surprisingly enough, on surveying I learned that students from other universities really like our campus buildings. It was utter shock to me because I had never liked the concrete and metal architecture at UW; I guess we are so used to our campus that we don't realize its uniqueness and elements in other campuses absent from our own tend to attract us more.

Some students from University of Ontario Institute of Technology (UOIT) also dropped by the IW office; one of the students is interested in starting a student newspaper at UOIT and wanted to know how is it all carried out. It was a nice bit of chit-chat and it felt good to answer their

questions. They also took some of our older newspapers and of course we took this opportunity to warn them about *Imprint*.

Early on Saturday morning, when I came in there was a UofT sticker on the IW placard outside the door. With some careful effort we got it off but the behaviour was definitely disappointing. Later on, it was rumoured that UofT stickers got stolen and they were posted all over the campus. Regardless of who has done it, this behaviour is very inappropriate. Such competitions are a means of bringing students from different schools together for exchange of ideas, celebrating each others' accomplishments and strengths and promoting healthy competition. Acts such as this, intended to sabotage the reputation of one school or the other do not prove anyone superior than the rest rather put a blot on the morals of the student community as a whole. It is my humble request to all students to refrain from such activities, especially when people from different backgrounds have come together, as it gives rise to general feelings of hostility and back biting.

And just a friendly reminder to my fellows at UW: the cardboard box outside the IW office (the old WEEF office, E2 2934A) is used to keep IW current issues and is NOT a garbage box. Please don't throw your coffee cups and chocolate wrappers in there. Do pick a newspaper if you like :)

An earthquake of magnitude 7.0 hit Haiti on Tuesday, January 12th. Around 170,000 people have lost their lives and a far greater number is in worse conditions due to the immense damage to infrastructure, unavailability of food and medicine, and lack of sanitation and hygienic conditions in this state of chaos. News of the Haiti earthquake and its after effects have been flooding over all media. It has mobilized the entire world and help in the form of rescue teams, medical units, food and other relief materials have been pouring in from the entire world. This is not the first time in history that a natural catastrophe has attracted attention and sympathy from the nations. Such incidents make me wonder why can we not live with such feelings of compassion and sympathy for our fellow human beings regardless of demographic boundaries invariably? We live in a world dominated by world politics. If a country declares war on another, we don't even pause to think about the effect it can have on a common person, who like you and I goes to school or work in the morning, does household chores and watches a movie before heading to bed. Then it's all about some intellectual or ideological theory or some ghost from the past and increasing death tolls of the same people don't bother us. Why does it have to be

an earthquake or tsunami to make us feel for those who get adversely affected? Are we so naive that we think the soldiers will only kill the 'bad guys' while the public will be walking gaily on the side walks?

Another thing that I read following Haiti earthquake was regarding adoptions. Following the earthquake, many families in Canada and U.S. who had already applied for adoption from Haiti have shown concern for immediate immigration of their adopted children. In addition, Edmonton Haitian community has requested the government to ease the immigration laws to facilitate sponsorship/immigration of their Haitian relatives. Similarly, the African Union has called for a mass adoption program of Haitian orphans and is considering creating a state for them in the African continent. I personally, am not quite in favour of such steps. The popular word that I had heard was 'rebuild' and I don't consider transporting children out of the country rebuilding the Haitian nation. I am not casting any doubts on part of the parents who are interested in adopting these children. But their sincerity and sympathy is not enough justification to separate these children from their homeland. Such abrupt cultural disconnection might not be healthy for the children in the long run. In my opinion the focus should be to "rebuild Haiti" – providing Haiti with the resources that are needed for reconstruction of the country and for a better future of these children. An attempt to relocate the entire population is a weak argument because it takes away the will and power from the Haitian people to face and fight the prevailing situation and does not provide for the building of a strong character for a nation that was the first independent nation in Latin America.

A second concern that has stemmed out of child adoption specifically is illegal child trafficking. Recently ten members of a U.S. charity group had been arrested for trying to smuggle 33 children across the border. Haitian Social Welfare Institute has also said that "numerous children" have left the country illegally. The Haitian government is enforcing strict laws to ensure that it does not happen again. This problem can as a matter of fact happen in case of adoption too. If the government starts acting on mass adoption, to what extent can it ensure that children are going to homely environments and will not be used for illegal activities?

With these thoughts, I am going to conclude my editorial. It will be a while before I get to see you again, since we are taking a midterm break. Good luck with the midterms and enjoy your Reading Week.

Smile C:
Amrita Yasin

Shadow Day Volunteers Needed!!!

We are looking for first and second year students who would like to show highschool students what an outstanding school Waterloo is!
Shadow day is being held on March 3rd and volunteers are needed.
Lunch provided.
Sign up outside of the Orifice Door or e-mail to shadowday2010@gmail.com

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Send your submissions to iwarrior@engmail.uwaterloo.ca

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THE IRON WARRIOR

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

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

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

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OEC 2010



Mike Seliske

UW Team working hard on the assigned problem

Continued from Page 1

Aside from the typical technical engineering competitions, there was also a Parliamentary Debates Competition. In this style of debating, teams of two argue in a structured format over a resolution given to them shortly before each round. The University of Waterloo took the lead in this competition, after a gruelling final debate against the University of Toronto.

Combining both the technical and communications aspects was the Engineering Communications competition. In this category, individuals or teams give a technical presentation on a topic of their choice to a panel of judges. Waterloo came in a very respectable 2nd place in this competition with a presentation on "Performance Comparison of Hot Mixed Asphalt versus Warm Mixed Asphalt and Their Effects on the Environment".

The final competition category is one that requires significant preparation and planning by the competitors ahead of time. For Innovative Design, teams have a setup similar to that of a trade show booth and showcase a new or improved product that could be potentially marketed. The students from the University of Waterloo placed 3rd in this category with their idea and prototype for a high-altitude imaging system. Congratulations to the University of Ottawa team who took the lead in Innovative Design.

After a long day's work at the competition, all the participants headed back to the Delta Hotel where the competition guests were being hosted and attended an awards banquet to end the event. The banquet environment had a huge contrast when compared to last year's OEC, with a newly added focus on the audio and visual presentation. As soon as guests entered the banquet, they found themselves presented with a lavish stage placed between two large projection screens and camera crews capturing the entire event. Guest speakers included David Johnston (the President of the University of Waterloo), Peter Braid (Member of Parliament for the Kitchener-Waterloo region), and the keynote speaker Larry Smith (professor of Economics at the University of Waterloo). The banquet proved to be a very flashy conclusion to a prestigious engineering event.

Overall, the event was a great opportunity for all. The competitions were well organized, the schedule ran very smoothly, and aside from the frigid air seeping into DC every time someone walked through the huge sliding doors, it was a superbly hosted conference. Congratulations to Stephen Lake (Chair of the OEC 2010), the OEC organizing committee, and all the students representing the University of Waterloo for putting on a great event and showing off how wonderful our school is. Well done Waterloo!

Gold In Those Essays?

OCEPP Essay Competition

Ontario engineering students who are passionate about public policy are invited to enter the second annual Ontario Centre for Engineering and Public Policy (OCEPP) Student Essay Competition.

The contest, open to all Ontario undergraduate and graduate engineering students who are also Professional Engineers Ontario (PEO) student members or part of PEO's Engineering Internship Training (EIT) program, offers a \$1,000 prize. As well, the winner will be invited to present his or her paper at the centre's 2010 Public Policy Conference, to be held in Toronto on May 7.

"Our centre has great connections to the universities and engineering students and faculty members in particular," notes OCEPP executive director Donald Wallace. "Not only can students further hone their essay-writing skills, they can explore a subject area in greater depth or consider the possibility of additional education or research." It's also an excellent way to build connections with professional engineers, business and association leaders and to enhance future career prospects, he says.

Last year's winners were an under-

graduate student from the University of Guelph, and a PhD student from McMaster University. "Depending on the submissions, the centre may declare more than one winner once again," Wallace adds. Competition rules, along with the winning papers from 2009, can be found on the *For Students* page of www.ocepp.ca.

In addition to the essay competition and annual conference (which has special student pricing) the centre publishes *The Journal of Policy Engagement* every two months. "All *Journal* authors are highly accomplished academics, engineers or other professionals, and I strongly urge students to use the *Journal* as a resource when writing papers and doing research," suggests Wallace.

Four times a year the centre presents noontime seminars in Toronto on current engineering and policy topics such as sustainable energy and the role of engineers in health care. Students can sign up at the OCEPP website to receive regular notification of news and events, as well as join the centre's Facebook group.

OCEPP essay contest closes March 1, 2010

FOC Loves You

Well hello loves of our lives,
So we are writing to keep you posted on our FOC-ing shenanigans.

It has been a pleasure so far to get to meet so many of you and see first-hand how excited you are about Orientation! We have had some pretty exciting interviews, which include (but are not limited to): southern accents, fake moustaches, suits, cookies (mmm so good), mashed potato snowmen, teddy bears, pyjamas, full EDCOM gear, some seriously hair-sprayed hair and, since we are engineers, graphs showing 'love for EngFOC over time' (for the record it was exponential and so love-filled that it disappeared off the paper almost immediately).

But regardless you are all equally passionate and we can't wait to start planning the week with you! The first event is our Orientation Leader Retreat. This will take place on Sunday, February 28th from 9 am until 2 pm. This will definitely be a good time and so make sure to book it off now! You will get to learn more about us and how super-freaky we can be. We will discuss

the restructuring of FOC for 2010 and the epic battles we've had to endure thus far. You will all learn about your responsibilities as Video Gurus, Bigs, Huges or EDCOM and how each of you will impact your fellow leaders. We will feed you ('cause we get cranky when we're hungry) and then do some mingling! Oh and if you stick around you may get to find out what the theme is and you'll have a shot at making EDCOM laugh (let's see who will need

the most practice between now and September).

If you would like to apply to be a Big or a Director then please do so ASAP at www.eng.uwaterloo.ca/~foc. We have some super sweet new Director positions which will allow you to work with us and the FOC team closer than ever before (good deal if you're thinking FOC next year!). You can help out with Move-In, JumpStart Friday or Ask-Me and Shuttle! Check out the descriptions online or send us an email if you have more questions: engfoc10@gmail.com.


If any of you think of some crazy ideas that you want to see happen, please send us an email and we'll try our best to make it happen. We've already had an awesome suggestion for the Guinness World Book of Records!!


Orientation week is in 212 DAYS!!!!!!
Get excited people!!!

Love always,
Cass, Niz, SeanO and Stu
Engineering FOC 2010



EngFoc pose in their fancy cowboy hats





IN THE 2010 FEDS ELECTION

FEBRUARY 9, 10, 11

**And don't miss the annual
FEDS Executive Debate and Forum
Monday, February 8, 3-7pm
in the SLC Great Hall**

**For candidates and other info
or to cast your vote visit**

vote.feds.ca

UWaterloo on YouTube



ADRIANA CAMERON
3A MECHANICAL

The University of Waterloo now has a YouTube channel. This channel, which can be found at www.youtube.com/uwaterloo is currently home to 84 uploaded videos – and is continuing to grow. It has received over 3000 channel views and upwards of 46,000 total upload views.

The channel has a diverse selection of videos that include science lectures, UW top ten lists, residences, academic programs, guest speakers, and businesses started by alumni. Channel videos include “Dead Aid: Why Aid is Not Working and How There is a Better Way for Africa,” “Bill Gates’ February 2008 visit to the University of Waterloo,” “Graduate Studies at UW,” “Geography and Aviation: Night Flight,” and “Talking Fair Trade Coffee.”

The most viewed video on the channel is “Thank You to Alumni @ IBM.” The video features UW students thanking IBM employees for contributing funds used to upgrade the university facilities and to provide scholarships. Although this is the most viewed video, it has an average rating of only 2 out of 5 stars. The low ratings of this well intended video are potentially due to the over used text animation, the screen in screen shots, the shaky camera work, or the over-enthusiastic students in the video.

UW’s YouTube channel will also help to ensure that you get your daily dose of cheese. If you would like to see what I mean, check out a video entitled “Who is The Mathiest? Math by Video - Problem 8: Lite-Brite Points,” which creates geometry problems based on the Lite-Brite toy.

UW faculty, staff and students are encouraged to contribute videos related to the university. According to UW’s Web Manger for Communications and Public Affairs, Sarah Forgrave, “We are seeking

video contributions that reflect the university’s attributes and share our research, stories, and innovations with the world. These may include, but are not limited to, lectures, interviews, promotional material, and features on the activities of [the University of] Waterloo. All contributions will be reviewed for suitability and videos from Waterloo students are welcomed, and encouraged.”

If you wish to upload a video to the channel, you must use the Waterloo YouTube Uploader, which can be found at www.youtube.uwaterloo.ca. Once at this page, you will be prompted to enter your WatIAM userid and password, read over the content standards and technical standards, and check a box indicating that you have read the guidelines and believe that your upload is suitable.

Considering midterms are lurking just over the horizon, you might want to check out UW’s YouTube Channel to help delay studying the next time you have exhausted all your usual procrastination websites.

OUAC Applications

KATE HEYMANS
1B CHEMICAL

For many of us the OUAC is nothing but a distant memory categorized in the dismayingly foggy archives of “high school experiences,” but for over 100,000 students who have applied to universities across Ontario, university applications, forms and deadlines are a major concern.

Although there was a rise of 2.1% in applications for Ontario universities this year this is normal. More and more students are considering secondary education as an essential step in life. University of Waterloo has seen a drop of 3.5% in applications overall and a 4.4% drop in first-choice applications (OUAC requires students to rank their university preferences). Closer to home, the applications to the Engineering programs at Waterloo have shown a decrease of 2.3%. Some would worry about applications decreasing, but the drop is considered ‘slight’ in light of the steep increase in applications in the past couple of years.

Events continue to be held throughout campus to show off what makes Waterloo the best. Another shadow day is in the works for early March. Once again first and second year engineering classes will be invaded by observers (some very shy, others quite a bit louder). On March 16th there will be the annual Campus Day event during which the campus population will increase dramatically (as will the number of people who are hopelessly lost) due to the torrent of visiting high-schoolers and their parents.

All of this seems meaningless to many of us who now confidently attend university, but if you dig into the recesses of your mind and remember how important making the choice of where to apply and which university to choose was back in the days of grade 12, you may find yourself pitying these poor students at the brink of one of the most important decisions of their lives.

New Digital Media Institute in Stratford

CAITLYN CARTWRIGHT
1B CIVIL

For those that haven’t yet heard, the University of Waterloo has yet another big project in the works! The university has been collaborating with the City of Stratford and other partners since 2006 to create a satellite liberal arts college campus in the city of Stratford. The college will be named the Stratford Institute and funding has been provided by the federal government, the Province of Ontario, the city of Stratford and Open Text Corp.

Stratford is located approximately a thirty minute drive west of Kitchener-Waterloo. Stratford is best-known for the Stratford Shakespearian Festival. The presence

of the University of Waterloo was projected to add 38 million dollars a year into the Stratford economy according to Stratford’s *Beacon-Herald* newspaper in 2008.

According to the Stratford Institute webpage, the Stratford Institute will have a liberal arts focus on “new media.” The goal is to create a “forward-looking research, education and convergence centre that will drive the next generation of digital media applications and content models.”

The Stratford Institute will explore the dissemination of culture and creation of art through digital media and new technologies. It will also study the changing ways we use technology and innovating unique ways to use emerging technology.

The University of Waterloo plans to

build the strength of the digital media specialization with the introduction of the Stratford Institute. There will be collaboration between multiple fields such as digital media, international commerce and culture within the college.

Many hope and believe that Canada will take a place as a worldwide digital media leader. In 2009, digital media and associated fields were projected to be one of the fastest growing sectors in the “knowledge economy” by the Council of Canadian Academies. The University of Waterloo clearly aims to be a leader in the digital media world.

The 11 acre former site of CNR steam locomotive repair shops in Stratford is the tentative site of the Stratford Institute.

EngSoc Elections Coming Up

PAUL FUGERE
CHIEF RETURNING OFFICER

As you may or may not know, the Engineering Society is having elections to pick a new Executive Team. While our goodbyes to the current Exec may be heartfelt for doing an excellent job, it must not be protracted; now it’s your turn to raise the bar. My name is Paul Fugere and I will be running the elections this term as Chief Returning Officer (CRO) with my CRO assistant, Michael Seliske. I wanted to write this article to get people thinking about running for an Exec position, because let’s face it, being an Exec is an awesome and rewarding experience and you will probably remember it for the rest of your life.

An Executive position lasts a full 16 months which leaves the Exec in power for two co-op and two on-stream terms. There will be six positions available this term and they are all pretty awesome. The President is the leader of the pack and is the official voice of the Engineering Society. This person will sit as a student liaison on many committees as well as be the official spokesperson for The TOOL. The VP External is in charge of liaising with the external organizations such as CFES, ESSCO and charity organizations external to EngSoc. The VP Internal is in charge of all internal events run by EngSoc during the term; they keep directors on track and work hard to make sure that EngSoc events are as awesome as they can be. The VP Education is in charge of representing

the students on many of the academic issues that come up including PDEng and keeping academic reps on track. The VP Finance ensures all financial matters are in line and is also in charge of the Novelities store. The Executive is a big happy family that spends a lot of time in The Orifice and with each other. If you feel that you already spend too much time in The Orifice or POETS and you would like to improve student life within engineering, consider applying for an Exec position- you won’t regret it. I will now leave you with 10 reasons why you should run for Exec.

1. Leadership experience.
2. You get to meet and work with a lot of incredible student leaders (directors, co-Exec).

3. Lots of people know your name (Dean, Associate Deans, faculty, staff, students).

4. Opportunity to make important decisions that actually influence students.

5. Sense of accomplishment when the Society runs effectively.

6. Being in the know about issues and events around campus.


7. Keys to the Orifice, POETS, outside doors, storage rooms - you always have a place to stash your bag if you make a last minute decision to join a PubCrawl.

8. Lots of free dinners and volunteer shirts.

9. You get your own mailbox and business cards.

10. You get seniority over computers in the EngSoc office.

Upcoming CECS Events Calendar

Wednesday February 3 Work Search Strategies 4:30-6:00 TC 1208	Thursday February 4 Interview Skills: Preparing for Questions 3:30-5:00 TC 1208	Friday February 5 Interview Skills: Selling Your Skills 2:30-4:30	Monday February 8	Tuesday February 9 Successfully Negotiating Job Offers 3:30-4:30 TC 1208	Check out up-to-the-day event postings on the CECS website at cecs.uwaterloo.ca 
Wednesday February 10 Thinking about Pharmacy? 5:30-6:30 TC 1208	Thursday February 11 Career Interest Assessment (Strong Interest Inventory) 2:30-4:00 TC 1112	Friday February 12	Monday February 22 Understanding the Multiple-Mini Interview 6:00-7:00 TC 1208	Tuesday February 23 Business Etiquette and Professionalism 3:30-4:30 TC 1208	

Research @ Waterloo



MOE ADHAM
4B MECHATRONICS

If you have been on campus for more than four months, you have hopefully heard the words “Institute of Quantum Computing” (IQC). While a recent Bond film may have you confused, I can assure you that quantum computing has little to do with securing the water supply of a South American country. I sat down with Dr. Frank Wilhelm, head of the Quantum Device Theory (QDT) group to get a better idea of what actually goes on at the institute. The work being done here is really quite exciting and has some far reaching goals. Unfortunately for this columnist, it isn’t exactly the easiest topic to understand, let alone cover in five hundred words.

The Quantum Device Theory group is a research group in the Department of Physics and Astronomy, with Dr. Frank Wilhelm cross-appointed to the ECE department. The group members are mostly post-docs and grad students in applied theoretical physics. Their research goals are simple to summarize: the design of devices that can be used in quantum computers. Quantum computing was originally a purely theoretical and mathematical idea. The question used to be: if we can harness quantum physics to build a computing device, would it be better than a classical computer? It turns out the answer is yes. Now, a more difficult question is posed: How do you build such a computer?

First realizations of quantum computing were around 15 years ago in atomic physics, quantum optics, and nuclear resonance. Scaling these original realizations was not possible and to truly harness the power of quantum computing you need to scale, preferably to the same level as an integrated circuit. The worldwide record at the moment is a 14 Qubit (Quantum Bit) device. This feat has already been achieved at the IQC, using nuclear magnetic resonance (NMR) in a liquid. The goal is to someday move towards using electronic elements, similar to an integrated circuit. To achieve this, one has to go

back to the drawing board and do the fundamental research that can change the world.

The group is currently focusing on superconducting devices. While this requires cooling to very low temperatures, it is not a real concern. Initial customers of these quantum systems will more than likely be super-computing operators. Some quantum devices do exist today, but the market remains in its infancy. Currently, the recognized biggest achievement is running on a 2 Qubit system. In the next decade, you probably won’t be using a quantum device in consumer electronics. The industry is still in pre-prototype and developing concepts. The most obvious applications are database searches, as well as breaking cryptographic codes. You really wouldn’t want a quantum computer on your desk, since these systems excel at massive parallelization. Would you really want to type an entire essay at once, and then have it all appear at the same time?

The group has recently received funding from the Intelligence Advanced Research Projects Activity (IARPA). This funding is aimed at a collaborative effort between materials science and physics. When it comes to quantum computing, materials have to be close to perfect and levels of imperfections that may be permissible in integrated circuits can have very adverse effects on quantum devices. The group is interested in semiconductor based realizations based on gallium arsenide using quantum dots. For engineering students interested in Quantum Computing, there are a number of avenues to proceed. Material science and engineering will become much more involved as new methods are needed to actually build these devices. There are opportunities for engineering students interested in participating such as USRA or as a co-op summer placement. Students interested in device design should focus on devices courses, be open to new paradigms, and have strong knowledge of quantum mechanics. There is also a fourth year course being offered soon through the department of physics in quantum device applications. If you are interested in the QDT group, feel free to check out their website at www.iqc.ca/~qdt

Clean Snowmobile Team



ALEX GIROUX
UW CLEAN
SNOWMOBILE TEAM

There are many well known student design teams at the University of Waterloo, such as the Solar Car Team, UWAF, Formula SAE, etc. One of the lesser known teams within the Mechanical Engineering Department is the Clean Snowmobile Team, which takes a stock snowmobile chassis and engine, and redesigns the sled to reduce noise and emissions, two major concerns with snowmobiles today. Currently the team is preparing to go to Houghton, Michigan in March for the SAE Clean Snowmobile Competition to compete in the Internal Combustion category.

Taking a sled to competition is no small task. The sled that will be entered in the competition must conform to all the rules and regulations, which has already meant hours of hard work in the snowmobile room, and there will be more hours of work to come. To ensure that the sled is ready for competition and will work reliably and efficiently during the events, the sled will be hooked up to a dynamometer for initial testing and tuning. The final stage in testing is, of course, taking the sled out on the trails! This will not only ensure once and for all that the sled is working well, but will also give the team a chance to drive the sled, as most of us had little or no experience with snowmobiles before joining

the team.

The sled that is going to competition in March is the sled that was taken to competition in 2009, despite not running at the time. This year our goal is to not only have a working sled, but to also have the BEST sled at the competition. This goal has presented several interesting challenges - first and foremost, the competition rules have been changed this year. In the past, there was a cap on the engine capacity of the sleds entered in the IC category. This year the cap on engine capacity has been removed, and instead there is a cap on the maximum horsepower that the sled can have - only 130hp. This has required the UW team to remove the turbocharger and related parts from the sled, since the engine will produce approximately 120hp without the turbocharger. The other major change this year is that the competition will focus less on the performance of the sleds, and more on the environmental aspects, i.e. noise reduction and emission reduction.

Looking ahead to 2011, the team has purchased a chassis for modification and has already started working on designing the various components. There is always work to be done in the team room, so if you are interested in joining a student team but are not sure what to do, I would highly recommend checking out the Snowmobile Team! Check out our old website at <http://www.eng.uwaterloo.ca/~sled/> (an amazing new website is in the works), or drop by the team room, E3-2103B, anytime the door is open.

Future of Nanotechnology



HEMIL PATEL
1B NANOTECHNOLOGY

Technology has always been developing: computer efficiency gets better every year, electronics are upgraded to become... better. All old news, all boring. So what IS new? Well, the research being conducted in Fudan University, China, will blow your mind!

The magical world of “Harry Potter” seems to have started merging with our own. Ji-Ping Huang and his team have been experimenting with the capabilities of nanotechnology and claim that manufacturing an invisibility cloak is, in fact, possible. As silver-plated nanoparticles are submerged in water, a flexible metamaterial is produced, described as the “active ingredient” for invisibility.

These plated nanoparticles, covered with 5 nanometers of silver, contain “magnetite balls” which are 10 nm wide. When exposed to a magnetic

field in water, they self assemble into vertical chains; the type of geometry needed to facilitate the bending of light around them, making it seem as if the object’s presence is a myth.

The team has conducted tests with three wavelengths altogether in the visible and infrared spectra. In the visible spectrum, the color red was used, as it has the longest wavelength. They were able to conclude that creating such invisible objects is possible; however, going further into the visible spectrum would be quite a challenge. As the wavelengths become shorter, the nanoparticles would also have to reduce in size to diffract the wavelengths. The difficulty

arises in finding the right materials to build those nanoparticles, as well as being able to reduce the particles to the correct size. Years of work. Well, at least we have something to look forward to in the next few years: our own invisibility cloaks, and possibly a rise in pranksters too!

What else is new? Ever ran out of battery on your laptop or a hand-held device when you needed it the most? There will be a solution in the next couple of years! The School of Material Science and Engineering at The Georgia Institute of Technology is conducting research to create power by naturally occurring minute events. The generation of power will soon be possible by events which include beating of the heart, breathing, blood flow, or even the movement of your hand. By using zinc oxide nanowires, a piezoelectric substance, electricity can be produced by forcing mechanical stress onto these objects.

Power generation will be possible by beating of the heart, breathing, blood flow, or even hand movement

Due to the size of these wires, the effort placed into creating power would be minimal to none.

Named “nanogenerator” by researcher Zhong Lin Wang it is said to be able

to grow on clothing, metals, ceramics and even polymers. Ever heard of those medical nanobots that may flow through your blood stream in the near future? This is the perfect thing to power them!

The theories on the capabilities of Nanotechnology seem to be changing to reality already! Although Nanotechnology is still mainly in its research phase, it promises a highly technologically advanced future with endless applications. Since Nanotechnology includes all other fields from electronics to even biology, all fields of engineering and the sciences are bound to have more knowledge added to their databases. Now that’s development!

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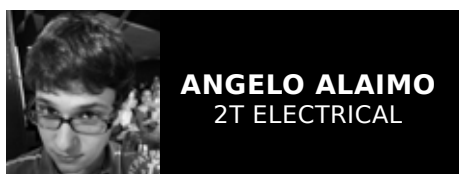
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Engineering traditions, Tuition fees, Co-op & faculty expansion



ANGELO ALAIMO
2T ELECTRICAL

Winter 1990 Issue 2 – Feb. 2, 1990.

An article written by Editor Elliot Simcoe, in the 2nd issue of *The Iron Warrior* reported the Faculty of Engineering Dean of the University of Alberta, had been presented with a petition “denouncing the actions by U of A’s engineers”.

According to the article, University of Alberta Engineers had received national media attention after a skit show crowd chanted “Shoot the Bitch” and “Get her off the stage” at a female performer.

The petition stated “Much must be done to eradicate the crude anti-female traditions, which despite recent efforts and the terrible Montreal tragedy, seem firmly entrenched in our engineering departments of our universities. Many of us, male engineers, are not prepared to wait for the slow process of enlightenment to penetrate the dark minds of a significant number of engineering students”

As for actions, the petition urged 5 actions, two of which are restated below:

“Hold immediately an Engineering Awareness Week dedicated to the women who died or were injured in Montreal. Require the attendance of all male engineering students and faculty at a number of seminars devoted to raising male consciousness on women in this society and in engineering today.”

“Prepare a program for frosh activities next fall which sensitizes incoming student and abolishes offensive traditions. Clearly inform in-coming students

of your determination to rid engineering of its present abominable image of crude tunnel-visioned anti-female morons.”

Winter 1995 Issue 2 – Feb. 3, 1995.

Today, as we battle with ever-rising tuition costs (now pushing \$5000+ a term), the same story raged 15 years ago when the Federal Government decided to raise tuition fees.

Andy Chan, Editor, criticized the Federal Government for free-spending in an editorial, “Due to the free-spending of past governments, we are left with a debt situation that can no longer be ignored. We are burdened with a massive debt that affects the quantity and quality of services our government is capable of providing. Each year a large portion of our tax money is put towards paying off the interest on our federal debt and every year that portion increases, leaving less money that can be used more effectively towards health-care, education, and social services.”

Interestingly in his article, Chan mentions a well used education-cost comparison between Canada and our southern neighbours. “Our tuition may not reach US levels (compare M.I.T.’s Engineering at \$20,000+(\$US) per year to Waterloo’s Engineering at \$2400+ per year).”

The mention of \$2400 per year tuition particularly interested me in the above excerpt. I honestly don’t know if this is a typo in the article, but I read it as one. Can you imagine \$2400 tuition per year? **Per year!**

As a solution to the Canada’s debt problem, Chan states “I would love to see a movement where every single person contributed a year’s pay solely to pay off the nation’s debt. Unfortunately, such an occurrence would never happen.”

Winter 1999 Issue 2 – Feb. 5, 1999.

The selected article of interest for this issue is a response by faculty and concerned students to the Point vs. Counterpoint (PCP) in the January 22, 1999 issue of *The Iron Warrior* titled “Is the Co-op system still about applying what you learn or is it now just a way to pay the bills?”

The unnamed authors of the response believed the question posed in the PCP of this issue was flawed as they stated, “The co-op programme has never claimed to enable to application of academic knowledge to the working environment. Rather, the strength of the programme is the ability to acquire practical engineering knowledge and skills.”

For the majority of text-heavy article, the authors rebutted the claims of the PCP author while also bringing wisdom for students in the workplace - “No one is ever given responsibility and leeway; it is earned. Showing initiative and interest will open up opportunities. There are few successful employers that would ever state that an employee has too much initiative.”

At the end of the article, the authors summarized the response into five major points, three which are printed below:

1. To maintain the reputation of UW, (and specifically the Faculty of Engineering) we must strengthen the co-operative education programme.

2. Demanding higher salaries from employers can only weaken the co-op system.

3. Your position within a work-term placement is only what you make it, and being apathetic only weakens the education derived.

Winter 2005 Issue 2 – Feb. 2, 2005.

As most probably do know, UW’s School of Architecture is part of the Faculty of Engineering, but did you also know it used to be part of the Faculty of Environmental Studies?

Cindy Bao documented the Senate’s vote to approve moving the School of Architecture to Engineering which began with the School voting to leave ES, “It wasn’t until the fall of 2004 that the School of Architecture voted unanimously to leave the Faculty of ES to join Engineering. Both faculties supported the decision and ES expressed “[w]hile the faculty and staff of the Faculty of Environmental Studies regret that the School of Architecture has made the decision to leave the Faculty, they do not wish to oppose the separation and prolong the instability this action has caused.”

The moving of the School to Engineering was believed to eventually create another engineering program at UW as well as strengthen ties between Civil Engineering and Architecture, “.....Dean Sedra mentioned that he would like to see more interactions between the Department of Civil Engineering and the School of Architecture, possibly a new program of architectural engineering in the future.”

The topic of PDEng did come up in Cindy’s article, “...engineering students are expected to complete a number of mandatory professional development courses during their co-op terms. When asked if the architecture students are also going to be participating in such courses, Adel Sedra, the dean of engineering, pointed out that those courses are geared towards the requirements of PEO.”

UW In The Process Of Homepage Redesign



AMRITA YASIN
3B CHEMICAL

As a part of a new visual identity, University of Waterloo is looking forward to redesigning the UW website (www.uwaterloo.ca) to reflect its innovative, inspirational, and forward-looking outlook. A consulting team “White Whale Web Consultants” has been recruited to conduct the redesign. After intense student response to the “laser” logo proposed in 2009, the communications team is taking steps to ensure student input is collected for the new website. For this purpose a meeting was arranged between the consultants and the students. The consultants seemed very open and empathetic to students and emphasized that the new website would be designed such that it reflects the authentic lives of students at UW and their relationship with the University.

A brief discussion about the current website revealed that most of the students have quick links to websites of their use such as UW-Ace, Quest, etc and very few students visit the UW homepage. The homepage seems to be designed for alumni and prospective students. The Daily Bulletin, which is the main form of communication from the University Administration, seems to primarily address staff. Some students commented that it is also “boring” with only text and not enough interesting pictures.

This led to a strong inclination towards having a student homepage, separate from the UW homepage which will be more relevant to current students. Students revealed that faculties are the source of school spirit

but in spite of the strong student-faculty relationship, even the faculty homepages are not too relevant to the current students. In the big picture, there should be a student homepage that connects students across all faculties. This page will have links to faculty homepages. Faculty homepages should have links to their respective Student Society homepages and entities like FEDS, Athletics etc. There was also a suggestion to make all UW webpages consistent, although there were mixed feelings because UW faculties are so different from each other that it’s almost impossible to address every faculty under the same banner.

There was a suggestion to design the new website as an interactive newspaper that offers means of internal communication by having advertisements of events taking place on campus. The website should celebrate student success and accomplishments and reiterate their experiences from their own perspective. Students should also be allowed to submit content to the website to advertise events. Maps, stories, pictures and images should be updated regularly as currently old pictures are reused most of the time.

UW houses a large number of student teams and clubs in addition to its eight major faculties. It was suggested that the new website should have customization capabilities so students can customize their homepages according to their own interests. Moreover, a subscription feature can also be added for those who would like to receive emails about updates from their customized groups.

There was a debate on what prospective students would like to see on the website. UW’s reputation as one of the top undergraduate schools and its co-op program is

what attracts students to UW. But when it comes to deciding which school they want to attend for the next four years or more, they are interested in knowing about the other things that will be happening, such as: “What is there to get involved with at school? What are the sources of entertainment outside of school?” The new website should answer these questions too. There should be more information about the community too, such as The Perimeter Institute lectures, Jazz Festival, Oktoberfest etc. These elements might also help to recruit international students.

Housing is a major component of student life and sets the direction for the Orientation Week. Housing homepages should feature videos showing interviews, activities and events happening at residence so prospective students get a better feel of what they will be experiencing in residence. Stories from personal experiences should be posted because they are more likely to appeal to incoming students. Nonetheless, the content posted will have to be moderated in one way or the other because at the end of the day it is portraying an image of the University of Waterloo.

One of the major concerns was to how to get student input. ‘Like’ and ‘Dislike’ on Facebook and Twitter do not provide enough feedback. It was suggested that open discussions should be conducted and a notice should be given well ahead of time. This will give students with ideas and suggestions the opportunity to participate and hopefully will avoid feelings of surprise and/or anger once the new website is revealed.

There was a brief discussion on the layout. The website should still have UW colours, black and gold, but with a clearer font. The

new layout should have a modern look that shows our distinctiveness as a well reputed academic institution and our perspective on building the future. Moreover, many people use smart phones so the website should be made compatible with them.

I encourage you all to visit <http://web.uwaterloo.ca/webform/redesign-survey-website-visitors> and fill in the survey.

Disclaimer: This article mentions the ideas discussed at the meeting It does not guarantee that the new UW homepage will necessarily incorporate all of the aforementioned changes.

The Iron Chef Maple Fudge

ELSA THOMAS
3B CHEMICAL

Ingredients:

3 cups Brown sugar
1/2 lb. Butter
1/2 cup Condensed milk
1/4 Tsp Salt
2 cup Icing sugar
1Tbsp Maple flavoring

Directions:

1) Put first four ingredients into a medium saucepan and bring to boil. Continuously stir the mixture and boil for about 5-7 minutes.
2) Remove the saucepan from stove. Add the icing sugar and maple flavoring.
3) Beat with mixer for 2 minutes.
4) Pour into 8” X 8” pan (lightly greased).
5) Chill and cut into small squares.

The Olympics and Issues That You Should Know

AMIR TALEGHANI
3A CIVIL

It was July 3rd, 2006, when I dragged myself out of bed at 7 am and ran to the TV to watch Jacques Rogue open that big white envelope. I couldn't have been more excited. The Olympics were coming to Vancouver: hockey, medals, parades, celebrations, and it was all going to be in my hometown! This enthusiasm and anticipation was the case for a year or two while it was all talk, pictures of politicians shaking hands, and artists' renderings of future Olympic venues. I was as pro-Olympics as one could get and I chastised anyone that ever suggested any possible disadvantages of the games. But, over the last two years, I have come to regret supporting the Olympics. The more I learn, the more ashamed I am of blindly supporting something I knew nothing about.

The purpose of this article is not to make you hate the Olympics. The fact is that most Waterloo students either support the Olympics or just don't care. It's not the red Olympic mittens that drive me crazy, but rather the fact that a lot of you who support the institution and the events associated with it do it as blindly as I did. So, I'll try to present some background to the major issues associated with the games hopefully with only a hint of an anti-games bias.

A simple way to look at the issues associated with the Olympics is to divide them into what failed and what happened that you didn't hear about. The games were promised to be profitable for the province. That failed rather quickly with the Olympic village fiasco, which left the city as the owner of an 800-million dollar loan because the developer's creditor went bankrupt. Construction was promised to be fast and not disruptive. It was fast, but the "cut and cover" method that was used to build the rapid transit line to the airport blocked the Cambie St. corridor from cars and pedestrians. This forced most of the local businesses to sell their properties, many of which have

now been acquired by big retail and fast food. There are many examples of how the Vancouver Organizing Committee for the 2010 Olympics (VANOC) and various levels of government failed to deliver on their promises, but they aren't really issues that would frustrate a student across the country.

Frustration is where the Olympics betrayed so many people in the social issues. There are two major issues which turned me against the games: homelessness and free speech as it relates to corporate protectionism. As a little background, the Downtown Eastside is a neighbourhood in Vancouver that faces complex poverty-related issues, including homelessness and drug addiction. One of the promises of the Olympics that was used to win over the city's support for the bid was to leave a "legacy of social housing". The province was finally going to attempt an appropriate and long term solution to the homelessness problem in Vancouver. There was talk of affordable housing with a network of social services that would support the mentally-ill, drug users and sex workers living in the Downtown-Eastside.

Instead, the increasing Olympic debt-load has forced the number of allocated social housing units further and further down. Most of the buildings where social housing units were promised will be sold to the highest bidder and the city's poor will continue to rely on Single Room Occupancy hotels (SROs) as the only affordable means of putting a roof over their heads. The abhorrent conditions in the SROs, including regular infestations of rats and other pests, are neglected by their corrupt landlords. Although the province has purchased several hotels and properties in the city, it has done so without a plan and as a result, there are no new social services. In fact, not only were no social service networks set up, the federal government has tried to close the free, clean safe-injection site in the Downtown-Eastside. Twice.

And here is salt on the wound: in 2009 the province of British Columbia passed

the Assistance to Shelter Act, which gives police the authority to force homeless people into shelters and even jail. Police can now essentially arrest homeless people when the weather is cold enough. The official reasoning behind the act is to prevent the homeless from freezing to death. But let's note a few facts and commonly accepted ideas here. This has never before been a political issue in Vancouver, where winter temperatures rarely go below -5 degrees Celsius. It is far too convenient that the issue was brought up in the months leading up to the Olympics. Moreover, the "solution" of jailing homeless people to keep them safe from the elements is opposed by most advocacy organizations and support services that work with homeless people because it violates their autonomy and absolves the government of the responsibility to implement the long-term solutions of more shelter space and, most importantly, more social housing.

VANOC is not only failing to keep up its promise of social goals for the inner-city; it is trying to clean up the streets by force. This is a brutal violation of human rights and is something that everyone in Canada should be aware of. It forces us to ask ourselves: what are the Olympics worth? Are they worth more than basic human rights of fellow Canadians? Why should we lie to the world about our cities? I am a proud Vancouverite and I wish the whole world sees the conditions apparent in the Downtown-Eastside. Maybe then our government will be forced to be honest and commit some real resources to solving the homelessness crisis.

The second major social injustice associated with the 2010 games is the treatment of free speech and protesters as it relates to corporate protectionism. The games have not yet commenced, so we will have to wait and see, but several human rights organizations such as the BC Civil Liberties Association have raised concerns over the treatment of protesters and their freedom of speech. The City of Vancouver has passed bylaws that will impose heavy fines on anyone who wishes to carry an "unauthorized" sign or placard that does not contribute to the "spirit" of the games. VANOC has also called for "free speech zones" where protesters will be asked to congregate. Of course in Canada, you have the right to protest wherever you please, but many are worried about what kind of police reaction will meet protesters who choose to

protest outside of VANOC's "free speech zones." With two weeks until the games, there has still been no mention of the details or locations of these zones, and VANOC's vagueness is one of the reasons the BC Civil Liberties Association is concerned. The ability to protest at the venues is further limited by key points in the VANOC transportation plan. There is no public parking for anyone at any of the venues; instead, free shuttle service is available to the venues and mountains. However, the free shuttle services

are only available to ticket holders.

Why are protesters' rights important to all of us? Of course, because freedom of speech is a basic right that is protected by our constitution and must be preserved, but also because it shows that Olympics aren't really for you and me. The spirit of amateur sport at an international level is dead; this is the new Olympics, where corporate protectionism is the king. The torch relay is surrounded by RBC flags and flanked by Chevrolet's newest cars, and Coca Cola wants you to "open happiness" while eating at the official "restaurant" of the Olympics, McDonalds. Tickets to the events are unaffordable, if not unattainable, and it appears the city is going to be in a quasi police-state for two weeks. This raises the question of who the Olympics are really for.

These are only some of the issues, and I am not denying that there are benefits of the Olympics as well. In fact, as a civil engineering student, I cannot help but see the future benefits of some of the new infrastructure. There is no need to mention the benefits here because they receive plenty of media attention. What you may see less of are the grassroots organizations and protesters who are trying to get their voices heard. It is your responsibility to be aware of both sides, to doubt and question official statements and mainstream media coverage. The BC Civil Lib-

erties Association has trained 400 legal observers—citizens who will monitor and document anything that may pertain to rights violations. You should also expect a lot of politics following the Olympics, and maybe even a public hearing or two, depending on how friendly the RCMP are feeling. Whether you support the games or not is something that you can only determine by weighing all of the factors and issues; then, and only then, should you show your support or lack thereof. An informed adversary is much better than a blind ally.

The more I learn, the more ashamed I am of blindly supporting something I knew nothing about.

Police can now essentially arrest homeless people when the weather is cold enough... to prevent the homeless from freezing to death

"The spirit of amateur sport at an international level is dead..."

Our Body On Display



ALISON LEE
1B NANOTECHNOLOGY

In my first month of being a frosh, I couldn't help but notice how many times I was told to check out the Children's Museum in Kitchener. At first I thought it was a joke, because the name brings to mind blinking lights and interactive talking bacteria (which might amuse me anyway). Well, they do have those things at the Children's Museum, but they also have exhibits that target adults, like Andy Warhol's Factory 2009 from last year.

In fact, we can expect more grown-up exhibits soon because the Children's Museum is rumoured to be changing its name to just the Museum in the future. Prospective exhibits include the Titanic and ancient Egypt. Located on King St. a short walk from Charles St. Terminal, the Children's Museum is a modern Kitchener landmark. It is home to a living wall and a licensed café featuring local food and beer.

The adult attraction currently being showcased is *Our Body: The Universe Within*, which may not be for everyone. This is very similar to the exhibit *Bodyworlds*

on display at the Ontario Science Centre and seen in Casino Royale. It features real human bodies preserved by polymer impregnation, or plastination. In this process, fat and water in the body are replaced by polymers so that organs, muscles, and blood vessels become pliable and suitable for display in the open air. *Our Body* is not just for med school hopefuls and morbid individuals; it is a frank look at the human body and the diverse systems within it. Different displays focus on particular areas of the circulatory system, nervous system, digestive system, and joints to name a few. It's pretty eye-opening to realize how complicated a living being is.

The exhibit was very expensive to bring to the museum, but due to a spike in corporate and community interest, it is making a profit. Students get in at a discounted price of \$15 and regular adults are \$25. *Our Body* is on display until April 11 of this year, and as a complement, the Children's Museum also has a public lecture series related to health care on Sundays. You have to book tickets to guarantee a seat, which can be done online, but they are free! Don't let its name fool you; the Children's Museum is an up and coming spot for curious minds of all ages, so keep an eye out for an exhibit that may interest you.

profQuotes

"Not all Newtons are equivalent. Some have figs in them"

- A. Hajian, SYDE 312

"I always get excited when I present this result!"

- T. Duever, CHE 325

"You can blame Waterloo for your nightmares"

- B. Epling, CHE 311

"We all hate petro, but you can go into it, make lots of money and save the world through donation."

- B. Epling, CHE 311

"The Internet is like a big wall that everyone can draw on with markers."

- S. Cameron, STV 302

"Hund's Rule: There cannot be two tigers in one mountain."

- K. Wang, ECE 209

"If you still don't understand it [Schrodinger's Equation] by now, you have to just accept it."

- K. Wang, ECE 209

"I used it because I'm smarter than you guys."

- P. Das, ECE 309

Prof: "Whatever I did [as an undergrad] I don't mind if my students do."

Student: "Did you cheat on exams?"

Prof: "Yes I did."

- P. Das, ECE 309

ENGINEERING SOCIETY EXECUTIVE REPORTS

Acting Presidential Report



MIKE MCCAULEY
ACTING PRESIDENT

Now that the term is well underway, I hope you are all enjoying things so far! It's been busy but there is a lot more to look forward to, so make sure you check out the events calendar!

I'd like to start by talking a bit about Dean Sedra. He will be coming to the next EngSoc meeting (Feb. 3) to give us an update on some of the hot topics he has been working on lately as well as to answer some questions students have, so be sure to make it out for that. The Exec are also going to be sitting down with him later the same week to talk about some of the things we are working on so if there is anything you'd like us to bring up with him specifically, don't hesitate to ask one of us and we'd be happy to bring it up for you!

I'm also happy to announce that Paul

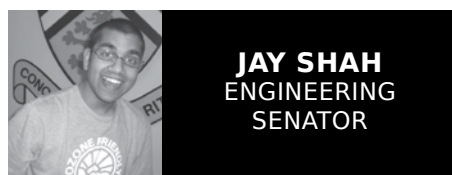
Figure is our Chief Returning Officer (CRO) for this term with Mike Seliske acting as the assistant CRO. Be sure to check out Paul's article for the latest in elections news. If you are considering running for an executive position and want to know a little more about what each of the positions are responsible for, feel free to stop any of the Exec at anytime and we'd be happy to tell you about the amazing things we do!

We had our second round of P&P nominations at the last EngSoc meeting but we will be accepting nominations until 5pm on Feb. 3, so email me if you still have anyone in mind. Presentations will be at meeting 3 (Feb. 3).

Finally, as I mentioned during the last meeting, we now have fancy EngSoc branded greeting cards available for purchase in the Orifice. They have the EngSoc logo embossed on the front and come with a snazzy yellow envelope - all for only \$2!

That's all for now - I hope to see everyone out at the next meeting! Good luck studying for midterms!!

Senator's Report



JAY SHAH
ENGINEERING
SENATOR

The first Senate meeting of the year occurred on Jan 18th. There weren't too many decisions but there was lots of information, so I'm going to try and convey the most important points:

1) There is a new direction being taken on the issue of Orientation length. It includes an effort to start student orientation much earlier (i.e. in the summer, to get students prepared even before they are on campus) as well as continue the orientation/integration well after the first 'O-Week.' Overall, there is a very open discussion occurring to determine what will result in the best possible introduction and preparation of new UW students. The creation of a committee is being considered that would have representation from all University aspects (some include: counseling, student services, students, registrar's office, etc.). The exact purpose of the committee hasn't been stated, but it would probably work towards establishing the future of Orientation Week, how we can start earlier, continue later, and how best to make the overall process effective for students.

2) The creation of the next university budget is looking to be very difficult, as

government funding levels are uncertain. In any case, the financial strains on the University are clear and the next budget will have to be very well thought out to make it balanced.

3) Applications to UW are down relative to applications to Ontario universities as a whole. No reason to panic, as there are still way more people applying than we could accept, but it does raise the question as to why. If this becomes a long term trend it will have fairly significant negative impacts on the university.

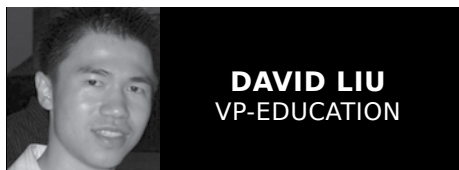
4) There is an acknowledged need to celebrate (in a broad way) teaching excellence. "We are what we celebrate," so to encourage great teaching at this educational institution we must take pride in it and show how much it is truly valued.

Overall the vibe at Senate is quite inspiring, there's a genuine desire to make UW constantly better.

The key to growth lies in the hands of each student who thinks, "this could be so much better IF..." Unlocking that positive change means that students need to share their thoughts with their peers, colleagues, professors, and other members of the university that have the ability to implement them. Acknowledging a weakness is the first step; acting on it is the leap.

Feel free to email me at senate@eng-mail.uwaterloo.ca Good luck on midterms!

VP Education Report



DAVID LIU
VP-EDUCATION

Hi A-Soc,

I hope everyone is getting interviews for jobs they want and landing their desired co-op placement. The good news is that the current students on co-op have achieved about 92% employment rate. Hopefully we can improve this number for our term. Other news from co-op is about the proposed engineering work term guidelines. These guidelines are intended to provide direction for job development and assessment to make sure it aligns with the CEAB accreditation criteria.

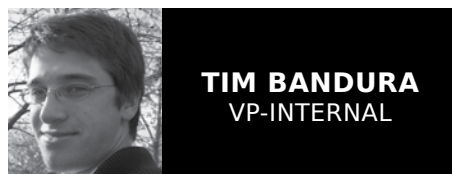
We had a Motivational Speaker, Sean Jackson, on Jan. 20th. He talked about diversity and community building within UW Engineering. He opened the eyes of his audience to the different kinds of people around us that he had observed through his personal experiences.

The PDEng Task Force Team assembled by Dean of Engineering is meeting twice a week. They are changing PDEng from

its fundamental assumptions. The team is going strong and we have accomplished a lot already. To find out more, please visit <http://www.engineering.uwaterloo.ca/pdengrenewal> for up to date news on our progress. One important development is that a sub-group of the Task Force will meet in the week of Feb 1st to focus on the 'quick fix' issues that we believe could be implemented more quickly in PDEng while we continue to rebuild the program as a whole. You may see these changes in your upcoming co-op term. Remember if you have something to say about PDEng, please let Sasha Avreline and myself know.

During the Engineering Faculty Council meeting on Jan. 19th where the Dean, Associate Chairs and Faculty Representative meet, the Dean of Arts, Ken Coates, was invited as a guest speaker. He mentioned the importance of encouraging Arts students to talk to Engineering students and encouraged inter-faculty student initiatives. Arts students take 95% Arts courses while Engineering students only have a few CSE electives. If the faculties could overcome this barrier, perhaps UW students can graduate better equipped to tackle the world. Please email me at asoc_ypedu@engmail.uwaterloo.ca to share your thoughts.

VP Internal Report



TIM BANDURA
VP-INTERNAL

Another report so soon? The term is just flying by. Okay! I just wanted to start by thanking my directors that have held events in the past few weeks. I want to start with the really awesome coffee house that Griff and Sean ran. It was completely incredible! All the acts were great, whether it was three guys with ukuleles (Uke Nukem) or one guy playing a violin with a loop (Noel)! I definitely recommend getting out to the next coffee house to see all the various talents! Big thanks out for Mike Seliske for running his skating workshop. It was only a small group, but it was a lot of fun! We had a great time just trying to learn to stop or skate backwards. I'm looking forward to the next session! It was also awesome to hear about

the 2014 Year Spirit 3D Twister party. It's good to see a graduating year celebrating their spirit!

Lots of stuff upcoming in the next week or so too! Genius Bowl happened on February 1st. It's one of those events that happen after I submit my report, but before it's published. So, I think it will go pretty well! Genius Bowl is always a great event. It's a good check to see how much random trivia everyone knows! Plus it's more fun to remember random trivia than thermo problems. Mary and the Boys were back in action for Genius Bowl, did you take note? Other than Genius Bowl, the week will end somewhat quietly until after Reading Week. Midterms are coming up after all [Insert ominous music theme, I prefer the Imperial March].

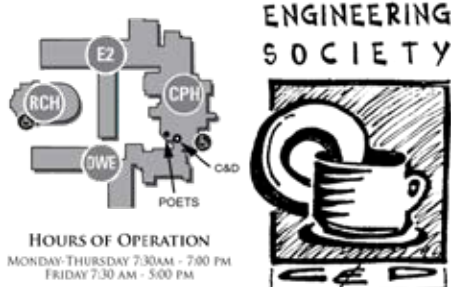
So with that, I'd just like to wish everyone good luck on their midterms!

Study hard and well
Midterms loom ominously
See you afterwards

MORE THAN JUST COFFEE & DONUTS

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

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



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

OPEN DURING
READING WEEK
8AM - 3PM



Exec dressed as seasons at last week's EngSoc meeting

Amrita Yasin

ENGINEERING SOCIETY EXECUTIVE REPORTS

VP Finance Report



ERIC COUSINEAU
VP-FINANCE

Hey A-Soc! It's that time of the month again! Time for a new issue of the IW! Not too much to report this time. First of all we just approved the budget for the term at our council meeting last Wednesday. I have attached it to this article for your viewing pleasure, or curiosity... or whatever.

Donations will be decided at EngSoc Meeting #4, and Donation Proposals are due to me by Monday, Feb. 22nd, by 4:30 PM. If you would like EngSoc to donate to your cause please outline how much money you want, what it will be used for, how many engineering students it will affect, and any

other information you think will convince someone to give you money. Please make it a maximum of two pages. We have a total of \$4500 to give away this term!

POETS Warrior Lager should be on sale by now so get your fanny down to POETS and buy one for a low price of **\$4.00!** (Cheapest beer there). Though I want to make it clear that EngSoc is subsidizing the first 10 cases only, and after that the price will go back up to \$4.25. POETS is hosting a (licensed) Superbowl party on Sunday Feb. 7th, keep your eyes and ears peeled for details. MOT will be happening at Bomber on Feb. 26th (At the end of ECE Hell Week!).

I want to finish by saying congratulations to all 4th years getting their Iron Rings this weekend!

Eric

VP External Report



MIKE MCCAULEY
VP-EXTERNAL

Holla!! I'm here again to give you an update on the External World. I'd like to start off with what I hope was a very successful Ontario Engineering Competition (OEC) last weekend that University of Waterloo hosted this year - check out the full feature article for more details!

This coming weekend I am heading to Thunder Bay for the annual First Year Integration Conference along with some wonderful first year students. We are looking forward to the weekend and will let you know how it goes upon our return!

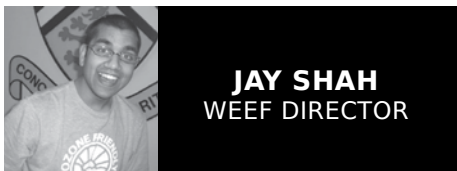
As I mentioned in the last meeting, there

is an Engineering Hockey Tournament being organized for schools in the area to enter and I would like to enter a team from Waterloo, so please let me know if you are interested! The event is going to be March 6-7 in Guelph. There will be at least three games throughout the weekend AND it will be free for you to play!

Finally, National Engineering Month is coming up and schools from across Ontario are working together to create a Rube Goldberg machine. We are looking for people to help out with Waterloo's contribution, so please email me if you are interested or have questions or you can sign up on the Orifice door.

And that's a wrap! Feel free to stop by the office or email me if you would like to know more about anything I've mentioned.

WEEF Report



JAY SHAH
WEEF DIRECTOR

Donation returns closed up without a hitch on Jan 22nd. Finance is now doing their magic to ensure that students who have requested their return do indeed get it. Statistics are not yet available for how many returns were requested, from which classes and from which years; they should be available in the next *Iron Warrior* issue.

Submissions of WEEF Proposals are now being accepted! For information on how to make a proposal visit www.weef.uwaterloo.ca/proposals.html - you'll see just how easy it is!

Visit the list of class reps at www.weef.uwaterloo.ca/council.html to see if your class has a rep. If your class does not have a rep, that means your class collectively gets zero input into where the ~\$85000 gets allocated this term, so it is in your best interest to get a rep. How can we know what your class/department needs/wants if you won't tell us or help us decide ;)?

Don't forget, WEEF is designed to be **for students by students** - its 100% up to the council of students (Reps from each class) to decide where we put the money.

KEY DATES:

Feb 15, Proposals are due

Feb 23/25, Proposal Presentations

Mar 2, Funding Council makes Decisions

Questions, comments or suggestions are always welcome - email me at weef@eng-mail.uwaterloo.ca

Income		
Fees (Estimated)	\$45,000.00	
Orifice Sales	\$5,000.00	
Total Income		\$50,000.00
Expenses		
Exec Discretion	\$2,000.00	
VP-Finance	\$500.00	
VP-External	\$500.00	
VP-Education	\$500.00	
VP-Internal	\$500.00	
POETS Renovations	\$6,000.00	
Total Exec Expenses		\$10,000.00
Director Budgets		
	S09	Approved
Academic Rep Advisors	\$300.00	\$800.00
Arts	\$200.00	\$130.00
Athletics	\$710.00	\$1,504.00
Athletics: Table Tennis		\$500.00
Bus Push	\$-	\$1,500.00
Charities	\$450.00	\$434.00
Competitions	\$415.00	\$300.00
CRO		\$300.00
Donations	\$2,500.00	\$4,500.00
Education Assistant	\$100.00	\$700.00
Engenuity	\$-	\$550.00
Engplay	\$1,100.00	\$800.00
EWB	\$-	\$100.00
Explorations		\$725.00
Float Day		\$1,000.00
Frosh Mentoring	\$-	\$650.00
Genius Bowl	\$325.00	\$300.00
Historian	\$-	\$10.00
Interfaculty Relations	\$500.00	\$300.00
Jazz Band	\$1,000.00	\$1,669.00
Music	\$380.00	\$400.00
P**5	\$1,000.00	\$1,000.00
POETS Managers	\$300.00	\$2,449.00
Resume Critique	\$100.00	\$195.00
Semi Formal	\$910.00	\$850.00
Shadow Day		\$550.00
Speaker	\$2,683.00	\$3,565.00
TalEng	\$850.00	\$1,850.00
Women in Engineering	\$450.00	\$550.00
Year Spirit (2010)	\$150.00	\$100.00
Year Spirit (2011)	\$150.00	\$150.00
Year Spirit (2012)	\$150.00	\$150.00
Year Spirit (2013)	\$150.00	\$250.00
Year Spirit (2014)		\$150.00
WEEF	\$-	\$500.00
Workshops (skating)	\$-	\$60.00
Total Directors Expenses	\$18,504.50	\$29,541.00

POETS

MOVIE SCHEDULE

SHOWINGS BEGIN AT NOON

Wednesday February 3	Thursday February 4	Friday February 5	Monday February 8	Tuesday February 9
Patch Adams Man of the Year Good Will Hunting	Thursday Theme Day	Hitch Hancock Seven Pounds	Twelve Monkeys Fight Club Se7en	Important Things With Dmitri Martin
Wednesday February 10	Thursday February 11	Friday February 12	Monday February 15	Tuesday February 16
Terminator 1 Terminator 2 Terminator 3	Thursday Theme Day	The Venture Bros	Reading Week	Reading Week

POINT VS. COUNTERPOINT

POINT

Should Extracurricular Activities Be Included in Your JobMine Package?

COUNTERPOINT

MICHAEL SELISKE
2A COMPUTER

There has been recent talk about CECS adding an additional required document to your JobMine application package, which will outline all of the extracurricular activities that you have participated in during your time at UW. If you ask any student in engineering they will usually tell you that there are two types of students, those who get involved in university clubs and activities and those who go home after class. This might be an overgeneralization and not everyone may agree with this statement but these thoughts have been shared by a large number of engineering students. That being said, extracurricular activities take time which could otherwise be allocated to homework or sleep. The problem which heavily involved students face is that the only thing the employers see from the University is the academic transcript which heavily favours the type of students who use the majority of their time to study or focus on school work.

The reality of this matter is that in most situations, the extracurricular activities which students partake in will provide skills that employers are looking for over having high marks. Extracurricular activities, through student teams and technical clubs, can provide real world engineering knowledge, and various students groups provide the opportunities to develop strong leadership skills and soft skills or a more artistic thought process. Many people will say that an individual's resume is where you can showcase all of your ex-

tra curricular activities but in many cases employers either throw out any applicant below a certain average or the activities get lost in the many impressive things an individual may include in their resume. There are some heavily involved people who volunteer for any event that is occurring on campus which is very impressive and develop soft skills. These skills would be well used in the work place but in many cases these opportunities are not showcased on a resume because there are too many other things to be included. One concise list of activities detailing all of the extracurricular and volunteer opportunities a person partakes in would showcase to an employer what a resume cannot display.

If the University were to include a concise list of activities and roles an individual has held, it will be easy to first see an impressive list of activities and also understand why a certain term wasn't quite as good academically as terms where a student has less responsibilities. From an employer's standpoint, information coming from the University will look much more impressive than something on a resume because they know that piece of information is verified and official. Most companies will not ask for references in a co-op interview because the period that a student will be employed for is not substantial enough to waste the time. This will potentially create a problem as students will fluff their resumes or add untrue extracurricular activities which make them look better than they actually are. Therefore, if this information is coming from the University as an official document, it provides a much more credible source of information on a student's extracurricular activities.

This article has gone over a few things that will really help out the heavily involved students who let their marks slip a little bit in order to volunteer. Some people might argue that the people who are not involved will not benefit from this addition or will actually be hurt, but they have their marks to support them, whereas the involved people don't necessarily have that. I would like to close by saying that this is a generalization and that there are always exceptions to the rules.

JON RADICE
3B CHEMICAL

In my handful of years attending this wonderful jail of a school, there's one thing that I've come to realize. If you focus all your attention on your schoolwork, you'll go absolutely nuts. The only way you'll get through engineering with a shred of dignity and some semblance of a smile left on your face, is if you find yourself a hobby or two. Aside from breaking my back filling this paper with content no one reads, I've joined a few intramural teams; I snowboard when I can; and if time permits, I'll go through a novel or three a term. Your extracurricular activities make you an interesting person, and it gives you an identity. Even so, employers should not use it as a basis of hiring.

The first problem that comes with using these activities as a basis of measurement is quantifying these activities so that they can be evaluated. This essentially will make a 'hierarchy' of activities, of which one would have no solid metric. Someone could spend every non-class hour training for a marathon, running 20+ kilometers a day, hitting the gym for hours after that, and realize that companies aren't looking for that at all. Anyone can train for a marathon; it adds nothing to the field of engineering and this person might even look worse than his peers who have multiple extra curricular activities. But compare that to more engineering-friendly activities – being a class representative for EngSoc (minimum of 3 hours every two weeks, maybe an extra few hours a week preparing events and informing classmates), writing for the engineering paper (breaking news: wrote this article in under an hour) and joining various 2-hour-a-week clubs. Even with this glut of good-looking extracurricular activities, the amount of time put in to these is overshadowed completely by the marathon trainer. But I can guarantee you, employers will look at the group of engineering activities and infer that the person is more motivated, determined, and better suited for whatever they are offering despite the smaller amount of commitment and time needed to do those tasks. I can and have done those engineering commitments, but I still could never run a mara-

thon. And the amount of extracurricular activities does not reflect on how good the student is at actual engineering. Many of the leaders and popular people in the engineering student groups are the leaders and popular people because they should have graduated a long time ago, and their lust for these extracurricular groups may have been one of the many pieces of straw that broke their academic camel's back.

And that doesn't even take into account unclassifiable time-sinks. Large chunks of time needed to do things that don't count as extracurricular tasks: taking care of loved ones, long distance relationships, and even caring for children all fill up time without giving anything worth stating to employers. More prevalent outside of engineering, but many students still need part time jobs to get through the term, leaving them with little time between their job and their schoolwork to beef up their extracurricular page. These people should not be punished for their situation if they are still able to work hard and get the grades to move along like everyone else. And I know this may be hard to fathom for some, but what about the people that actually like their schooling? The ones that will do all the additional readings, will grind through all the additional problems, and will always seem to be the ones asking the profs the difficult questions at the end of lectures. Their extracurricular activity is their schooling, and they tackle it with just as much drive, heart and determination as any other extracurricular activities. Employers may be quick to gloss them over even though their minds are incredibly tied to the engineering world.

In the end, it really boils down to this: if you're a good worker, and you're good at your job, it shouldn't matter what you do. Whether you spend your spare time building hydrogen bombs for the government, staring blankly at your wallpaper, or doing line after line of coke off of strippers, if you can come to work and still excel at the job you're doing, it shouldn't matter. Many people want their job to be their life, and many people want their job-life and their personal-life to be separate. If they both can get the company to the same point, then both ideologies can be embraced. A hard worker can be bred by working hard at these extracurricular activities, but they can also come from working hard at school and making sacrifices in order to go to school – these things cannot be measured by lists on a sheet of paper, but rather from the interview itself. A better measurement of this is past work term evaluations, not what you do outside of work.

By listing the extracurricular activities, I can see it is supposed to help those with spectacular grades, but in most every scenario, I can see it doing quite the opposite. If you're a good student with lots of activities, you'll get even better treatment. But if you're a bad student with the same amount of activities, I would see that as someone who can't manage their time effectively in order to do well in school. The gap here between good and bad student will actually widen in this case, and I could see the student performing worse in the job market.

So kiddies, stick to keeping your extracurricular activities as a small blurb at the end of your resume. If employers take notice, you can tell them all about your endeavors in the interview. Keep your work at work, and your play wherever you play.

Editor's Note:

Point Vs. Counterpoint is a feature meant to stimulate discussion on thought-provoking topics. The views and opinions expressed here do not necessarily reflect those of the authors, *The Iron Warrior*, or the Engineering Society.

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LISA TONG
3B CHEMICAL

For the Women: Body Types

Everyone knows this: not everyone is made the same. The media likes to portray the ideal body image for women to be tall and lean. Obviously this is not the case and it tends to be a problem, especially for women who begin to work out to become smaller and leaner. First understanding your body type is very important to understanding what your fitness needs are. A scientist named W.H. Sheldon created a system whereby body types can be classified into three categories: Mesomorphic, Ectomorphic, and Endomorphic. However, a person is not entirely restricted to just one category.

Mesomorphic – Mesomorphs are more muscular with larger bones and thicker joints. Generally all men fall into this category, mainly due to the testosterone that is released. However, having said that, women have a small percentage of testosterone which is being released in the bloodstream from a gland near the kidneys (adrenal gland).

Ectomorphic – Ectomorphs are leaner and have a larger absence of fat, making muscle fibres and skeletons more prominent, however lacking muscle tone. Their metabolisms are much higher, leading to a higher consumption of calories.

Endomorphic – Endomorphs are generally rounder and wider. Endomorphs take a lot more effort to lose weight because the food being taken in is easily absorbed into the body and the metabolism is lower.

Many women actually have a mix of all three categories; however one or two will be much more prominent than the other one(s). So why did I tell you all of this? I just want people to be aware that due to your genetics, not everyone can end up with the same ideal end result. What is most important is being fit and healthy because the results will show later. Look out for my next article on Being Skinny vs. Being Fit.

What's a Yoga? Can I nom it?

ALISON LEE & IOANA CRAICIU
1B NANOTECHNOLOGY

No, reader, unfortunately you cannot nom yoga. Nor would you want to. Yoga is best enjoyed with patience and an open mind and, in our humble opinion, oral intake simply won't do. We would now like to give you a sneak peek at what really goes on inside a pair of yoga pants.

Yoga originated in India, a long, long time ago and is linked with the spiritual practice of Hinduism and other religions. Recently, yoga has stretched its way across the many seas from India to North America. This has had diverse ramifications. Some that may immediately come to mind are the less-than-flattering-on-many, very-flattering-on-a-select-few yoga pants or the Will Ferrell SNL skit. However, for those who have actually tried yoga, the experience has been much more rewarding. Increased strength and flexibility, leaner muscle tone, and the discovery of muscles you never knew you had are among the many physical benefits. It also helps to correct the "I live in a DC cubicle" posture by stretching and strengthening the muscles that have

Flatten/Strengthen that Tummy with Core exercises!

Being in an engineering program, much of our workload takes up most of our time and the stress begins to build up. My foolproof method that I have been using for years is being active and working out. 'Working out' and 'gym' are terms which have been floating around lately amongst my peers. While you are raising your heart rate, your brain releases endorphins which provide a good explanation to all the happy feelings one feels after one works out—this is always the feeling I aim for after a stressful time in school. My main focus for the remainder of the term is showing you a set of workouts which you can do at the gym or even in your own room!

You can do this exercise either at home or at the gym. All you need is a mat/carpet, typically anything with a soft surface for your back. Mind you there are a lot of variations of what I will be showing you. This is what I do and it is my own preference. It will not guarantee the same results for everyone. So try other variations and see what works best for you.

Crunches: Lie flat on your back with your knees up and feet on the ground in a comfortable position. Place your hands in an 'X' position over your chest. Focus your eyes on a spot on the ceiling or wall, lift your shoulders (not head!), pull yourself forward, and breathe out. Slowly lower yourself back on the ground and repeat.

Planks: Lie on your stomach and put your arms directly underneath your shoulders. Push yourself up, creating a 90 degree angle between your forearm and upper arm. Remember to tighten your stomach while you are doing this. Hold it for as long as you can.

Side Planks: Lying on one side, put your lower arm beneath you making sure that the elbow is directly under your shoulder and lift yourself up. Your other arm should be on your hip and your head should be aligned with your body. Hold this for as long as you can.

Lower Abs: Lying on your back again, lift up your legs together. Start from having your legs in a lower position and start raising your legs towards your head. As soon as your legs are directly above your hips, raise your hips up. Breathe out and repeat.

long been neglected by the average library dweller.

Yoga also has a very spiritual side, depending on which practice you choose; practices can range from transcendental experiences to the simple act of de-stressing through exercise. Our experience with yoga (which has spanned 4 years for one of us and 4 months for the other), has led to experiments with focus, self-control, and patience. More than just a cool party trick, yoga had led to self-improvement in many areas of our lives.

There are plenty of opportunities to get involved with yoga on campus. The CIF offers a variety of classes, and both UW and the Engineering Society have organized free yoga sessions in the past. We encourage you to go out and try it for yourself. We promise, even if you can't feel your legs after your first class, you will feel good on the inside.

More than anything, we would like to stress that yoga is not just for hippies or Lululemon junkies. Yoga can improve your life whether you are a brain, an athlete, a basket case, a princess or a criminal.

The Olympics – A Design And Technological View

ANDY WU
2A ELECTRICAL

Competition has, for the most part of history, been the catalyst for advancement in all facets of human life. Consider the long and arduous history of war that has been most definitive of human nature and one can easily see the technological advancements that have either been a direct product, or some derivative of man's fundamental competitive (or some may say selfish) spirit. In what we consider to be modern times, where unbridled violence is frowned upon by civilized folks, the competitive spirit remains just as strong, and perhaps its most obvious outlet is through competitive sporting.

And of course, when it comes to the pinnacle of competitive sports performance, nothing rivals the Olympics. From an engineering and design perspective, the Olympics has catalyzed technological development over the years. It's a fitting subject matter at this time, seeing how a lot of us are anticipating the upcoming Winter Games to be all kinds of awesome.

When we think of the Olympics today, we recall the architecture that is such a huge focus in every game. From a civil engineering standpoint, many Olympic stadium constructions utilized leading construction methods of the time, and the projects were performed under tight time constraints. Recall the 'Bird's Nest' of the 2008 Beijing Olympics? The sheer speed with which the huge steel girdles were erected was pretty amazing in itself. What's even more amazing is that the engineers managed to shave off 13% of the steel used mid-design and save costs by a considerable amount. Other challenging construction projects for the Olympics can also include the Munich Games in 1972. Despite being remembered for the terrorist violence, any architect worth his salt will recall the futuristic acrylic domes suspended by strategically placed steel cables. In fact, it seems that as soon as this technical masterpiece was built, all subsequent Olympic cities followed suit and engineered their own very geometric buildings. Utilizing the forefront of the day's building methods and design ideologies, the Olympics are a prime example of applied architectural engineering.

Apart from the architectural development that can be seen from the Olympics, the evolution of sporting equipment can be a genuine case study in design evolution. Remember Phelps's shark suit? A perfect example of bio-mechanical engineering, it's been one of the most hyped, high-tech sporting technologies to date. Dubbed the FASTSKIN, it featured microscopic scales that act like a shark's skin to reduce drag. The suit's manufacturing process, though touted to be top-secret, is conceivably a technical challenge in many aspects. Not many people know about the extensive computer modeling that goes on behind the scenes when making one of these suits; since each and every suit has to be custom fitted for optimum performance for the particular wearer, who has unique body features and hence hydrodynamics. Therefore, the design task of coming up with each suit is an extensive parametric-optimization exercise.

Any other sport that requires the use of equipment can be considered a haven for identifying new mechanical and manufacturing innovations. Much of the technologies often trickle down to the common consumers in time. Take for example the first carbon-fibre time trial bikes that appeared in the early nineties. Chris Boardman's Olympic cycling time-trial victory on the then state of the art carbon fibre monocoque

Lotus Type 108 during the 1992 Barcelona Games can justifiably be considered to be a key turning point in the biking industry, which shifted focus from the idea that high-performance machines are generally made from unique steel tubing to a focus on composite materials. In fact, since the inception of composite technology in the Olympic cycling events all those years ago, carbon fibre and other high-end plastics are being used at an ever increasing rate in today's high end bikes available to the common consumer. In fact, some of these machines aren't that expensive at all, with many models on offer today by popular makers for under a grand.

So what are some of the technological points of interest the winter games here in Canada? For starters, even that national quirk of a sport curling is utilizing a wide array of integrative technological tools to improve the team's performance. State of the art motion capture technology is utilized to fine tune the players' posture and technique so as to maximize their performance on-field.

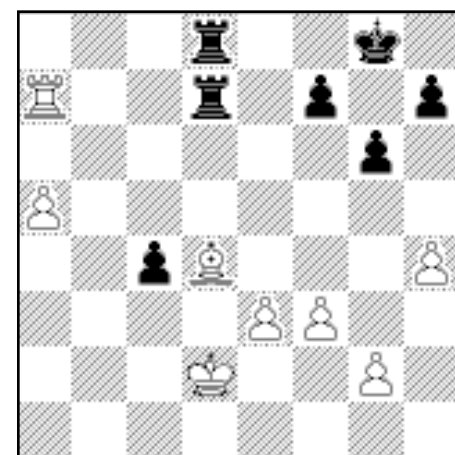
Another little engineering gem to note this time round is the torch cam, which is designed to broadcast images from first-person perspective of the bearer. Current limitations in video transmission technology means that the transmission point must either be stationary or, as in the case of live-video feeds from helicopters, the transmission device is of considerable size. With this new implementation, a multitude of cell-phone signal networks are utilized simultaneously alongside Wi-Fi transmission when in a hotspot to ensure continued and uninterrupted video input from the mobile torchbearer. This new development is a fresh perspective on live-video transmission, and it'll be interesting to see what future developments will occur for this technology.

And lastly, our speed skaters are utilizing a huge treadmill that can accelerate up to 60km/hr to help build on their technique. In a sport where the time difference between 1st and 2nd place is often measured in milliseconds (the difference in the Women's Gold and Silver timings for the 2006 Torino Winter Games was a mere 21 milliseconds), this disciplined and highly scientific approach that utilises these technologies seem to be the one and only way to maximize an athlete's edge over his or her competitors.

It'll be an interesting Olympics to watch, not just for the fact that its right here in Canada or just for the fact that we get to see our favourite sporting heroes (hopefully) beat their lesser rivals, but also because there's much to observe from a technological standpoint. I'll be keeping my eyes peeled!

Chess

MOE ADHAM
4B MECHATRONICS



Problem: White to move and WIN

Why Canada's Men's Hockey Team Won't Win Gold



JON RADICE
3B CHEMICAL

Like any good ol' Canadian boy, I am incredibly excited for Canada to take to the world stage in Vancouver's GM place to show the world who dominates at hockey. But with the taste of Turin's 7th place finish still lingering in many players' mouths, it's hard to say definitely that Canada has a team that could put every other on ice this time around. While the 23-person roster (found on www.hockeycanada.ca) is a showcase of some of the greats in the game, there are still five major flaws that this team has to smooth over if they want to think about kissing gold.

1. The Ghosts of Power Plays Past

One of the biggest problems with the 2006 teams was the fact that their power plays failed to convert at key times. Looking around the league, there are strong power play quarterbacks that can make the man advantage really tilt in their favour. Chara, Markov, Streit, Gonchar, Kaberle are all people that can make people really feel the burn of killing off penalties. Combine that with the smart forwards that can pick apart a goalie and you have a vital unit. Unfortunately, these elite quarterbacks mentioned are all non-Canadian and all of the elite Canadian snipers did not get picked. Don't get me wrong, Drew Doughty is lighting it up, and Weber is one of my favourite peo-

ple to see on the PP, there is just a fair bit of talent that got overlooked.

2. The Ghosts of Mike Green

Speaking of looking to recoup from a bad power play, wouldn't they look to the defenseman with the most power play points, and the most points for any defenseman? Mike Green has made a killing feeding talented stars on the man advantage, or even strength. Sporting a nice and large +22, it looks like Green seems to know how to get the puck away from our net and into the opponents. Put him with a group of talented forwards, and magic will happen. But, unfortunately, he'll have to hope for an injury.

3. We Lack the European Touch

Well isn't that obvious; a group of Canadians are weak at playing the European game. The NHL is much more bump-and-grind than international hockey, where stick handling and sniping dominate over pure physical grit. You know what's a scary line in international hockey? Put the most electrifying goal scorer on a line with a playmaker with hands that could perform surgery and top that off with the best sniper in the league. I can't think of something scarier in the international game than Russia's top line of Ovechkin-Datsyuk-Kovalchuk (sure you could replace Datsyuk with Malkin, but that doesn't make it any less scary). Canada may boast more well-rounded players, but in the realms of pure talent, they can't compare in the individual areas like Russia's lines. And that could hurt.

4. Goalies Win Tournaments.

This has happened many times in playoff hockey, a hot goalie will carry an under talented team much farther than they should have gone, and a cold goalie has made the strongest team bow out early. Brodeur is having an amazing season, and in all respects he is Canada's number one. But we have to remember that he is no spring chicken. He is doing some unheard of things at his age, cementing his place into record books on a monthly basis; the fact remains that the Olympics is a demanding tournament, one that could cause an older goalie to fold very quickly. While I have faith in Marc-Andre Fleury as a competent crunch-time goaltender, as he's proved it in the last two playoff runs for Pittsburgh, Luongo has not shown himself as a competent playoff goaltender. It's hard when someone who has had very little playoff success like Luongo to be expected to carry a team if Brodeur should falter.

5. Crosby is a True Captain

While I have bashed Crosby as a whiny baby many times before, no one can deny the true leader that he is. Taking a team to the cup last year as the youngest captain in history, Crosby can motivate men much older than him and he gets results. The current captain, Neidermayer is captaining a cellar dweller of a team with a terribly unimpressive -17 and an equally unimpressive 30 points on the year. If I had to pick a better captain, I'd probably choose the one that has seen success since the last Olympics.

Go Canada Go!

Reading Week Ideas

Ideas from the IW Staff

Mikayla Micomonaco:

If you're in ECE, here's your plan for Reading Week. Study! While everyone else is enjoying their week off, their week to go somewhere warm, ski, do nothing, visit home, whatever else people want to do for their one week of freedom; you get to study. Our department has come to this quite astounding conclusion that we should actually READ on Reading Week. I mean...READ? Why ever would we do that? Oh yes...because of that wonderful thing known as hell week. Those five midterms in five days. So, enjoy your break and see you in hell.

Amanda LeDuc:

The best thing to do on reading week is to get way the heck away from this cold land we call Canada. My sister and I have taken this idea to heart and are heading to Florida for reading week. Reading on a beach is much more enjoyable than reading on a snow bank. Also, a week in the sun will raise those vitamin D levels and get you all re-vitalized for midterms. A week in the sun will also cause a tan, which in my case means my pasty skin will finally be the same colour as everybody who didn't see the sun, or I'll come back the same colour as a tomato. Either way, a warm reading week sure sounds awesome to me.

Roy Lee:

What do to over reading week? Go home hang out with old friends from high school. Reconnecting with past friends is quite a shocker sometimes; it is like opening a time capsule. By doing this you will probably find how much you've grown in the last few years or even how much you haven't grown. Then, depending on who you are or who you were, you might be very disappointed in the choices you have made and will set out to make amends where you can, or you will be extremely happy with what you have made of yourself. Either way you will probably be more attuned to what you want and where you are going with your life.

Michelle Croal:

Between co-op and midterms, I've had only one reading week here at Waterloo and I spent it in Fulcrum Lab in E2. Late last year, there were talks of going to Mexico or Finland, but in the end I think I'll just be splitting my time between home and Waterloo. Before heading off to Chemical Valley last summer, I grabbed copies of every issue of *The Iron Warrior* that I had written articles in (a decent sized stack), with the intention of putting together a scrapbook. Anyway I never got around to it, but with all my decorative paper supplies at home I think I'll finally make it happen. I also got a book on scrap fabric dolls - think teddy bears out of socks type of thing - so I'll get the sewing machine out and be creative!

Kate Heymans:

Go visit your friend's home.... Yes, you know that friend who's been offering you invitations to his/her(it's) house since you were a frosh? Well now you finally have time to go visit them. Best of all they've got a nice home that's not too far from Waterloo and offers all the wonderful benefits that we live without on a daily basis; heat, food and water. So accept their invitation and discover a new charming little town or a nice big city. For those of us that like shopping it allows new findings to be made or if you prefer other activities *cough*drinking*cough*, you might just find a new favourite hide-out for your hobbies.

Environmentalism Is The Bomb

ERIN MATHESON
2N CHEMICAL

Remember global warming? That big theory that emerged way back in the 90's that no doubt changed the way the public thinks about the environment, as well as the faces of the people who fight for it. It's not all hippies and fundamentalists, oh no. It's celebrities, politicians, public figures, and hippies and fundamentalists with non-fat lattes and haircuts. Regardless of who's talking about it, global warming has no doubt become one of those social topics that's been around long enough that it's starting to become white noise, especially when up against newer, cooler fears, like the recession, the H1N1 pandemic that's bound to happen eventually, and that TTC worker who always seems to be asleep. But amongst all the dying hype, you'd be surprised to hear who's talking about climate change these days.

Enter Osama Bin Laden, everyone's favorite international terrorist tyrant - leader of the fundamentalist group Al Qaeda and responsible for astronomical destruction, including the 9/11 attacks back in 2001. The 17th son of 50 children, at least according to most sources, even Freud would say "he has issues." He's a man in his mid-50's on dialysis, yet in the business of hiding from Americans he makes Waldo look like a fat man trying to hide behind a toothpick. His face can be recognized from his twisted equivalent of a video blog that he posts over the Al-Jazeera network where he calmly speaks of death to Americans via his myriad of awful planned disasters. However, his latest clip has shown a slight change of pace.

On Friday, January 29th a new audiotape surfaced on the network in which Bin Laden described himself as a "believer in

climate change." In the second recording from the leader this week, he speaks out against developed countries for continuing to mass-produce greenhouse gas emissions along with other pollutants even after signing onto the Kyoto Accord. At the very least Bin Laden checks his facts, as the United States stayed out of Kyoto despite heavy criticism, and he made a note of this in the video. He goes on to state, "George Bush Jr., preceded by [the US] congress, dismissed the

He speaks out against developed countries for continuing to mass-produce greenhouse gas emissions along with other pollutants even after signing onto the Kyoto Accord.

agreement to placate giant corporations. And they are themselves standing behind speculation, monopoly and soaring living costs." This seemingly flawless logic and reason is also accompanied by the cry for the global economy to stop using the US dollar, and praise for the political analysis of Noam Chomsky, just to keep the young people interested.

But wait, it gets better. In keeping with the American tradition of "one-upping" your predecessor, regardless of the complications, news of this media release set conservative, anti-Energy Plan news groups a-flurry. The right-wing blog Drudge Report was all over this little snippet and it also got some airtime on Fox News. The outrageous statement title, however has to go to the Conservative website RedState, which asked, "What is the difference between Bin Laden and Al Gore?" Thought provoking as always.

But not to fear America, for your great leaders show no sign of concern regarding this latest message. Typically when the head of an international terrorist organization starts bad mouthing your country, regardless of the reason, one would think that this could possibly be classified as a cause of concern. Not in the great US of A, where State Department spokesman Philip Crowley was quoted as saying, "So we've gone from being the 'Great Satan' to the 'Great Emitter.'....He's working hard to stay relevant. That's all I can say." So only socially relevant figures are threats now in the States? Someone tell Bin Laden that he needs to relocate to Cupertino and start publishing his audiotapes on something with a touch screen, then he'll be taken seriously.

Security threat or not, the message is adequately timed. In his state of the union address this past week, President Barack Obama promised to incorporate two Republican house favorites into his "Clean Energy Plan," expanding offshore drilling and building more nuclear plants. I assume these additions come with complementary air quotations. At the very least, Bin Laden will do an admirable job of screwing with the President by getting all of the Republicans riled up while Obama is trying to push through much tougher environmental legislation that isn't sitting well with the Republican side to begin with. The White House is doing what it can to reduce greenhouse gas emissions, but it won't be enough nor will it reach the goals and expectations set out by Obama unless Congress follows suit. Regardless of the final outcome, it has become yet another entertaining act in the perpetual saga of the United States dragging its heels on the environment issue, and it promises more to come.

The Brew Man Group - The Lager.. Blinded



DAN ARMSTRONG
3B MECHANICAL
NEIL PARTRIDGE
3B CHEMICAL

This is the 10th issue of The Brew Man Group (12th if you count *Tin Soldier!*). It is therefore curious to note that yours truly have not yet discussed the top-selling beer style in the world; the lager (specifically the pale variety). Why is this? Is it because they don't have any history to speak of? No. Is it because they're all awful? Hell no! Is it because we're too pretentious and refuse to discuss such commonplace things? Possibly... Regardless, it is about time that Dan and Neil bring you essential information on the golden, crisp style that is the pale lager. And just to make things more fun, we're going to do some analysis using the ultimate beer geek weapon: the blind taste test.

Dan: Long ago in the 16th century, before Nickelback ruined everything forever, Bavarian brewers were forced to brew in only the colder months of the year. This required them to store the beer in cold caves, where it would be left for several months and then brought out as required for summer drinkin' (or if it was too hot then people could go down and have some sweet cave parties). This process is referred to as 'lagering' and results in a clean, crisp beer. What's tricky is that this has been happening for longer than people have understood the process of fermentation, so the early lagers were about as consistent as Neil's home-brew. Thanks (at least in part) to Louis Pasteur, we now know that lagers require a strain of slow-acting yeast that ferments at a lower temperature. With

this knowledge, the Bavarians formalized their lager brewing technique by the mid 19th century and were quickly mimicked by other European brewers. It should be noted that there are many styles of lagers, such as Dunkel (dark, such as Waterloo Dark), Rauchbier (smoked), and Märzen (brewed in March for that autumn's Oktoberfest). As such, referring to a beer as just a 'lager' doesn't necessarily tell you about its colour or flavour.

Unfortunately, it isn't examples like Ontario's Creemore Premium Lager or Czech's Pilsner Urquell that make the pale lager the most popular style today; it's the cheap adjunct lagers like Budweiser, Molson Canadian, and Coors Light. An adjunct lager is one that instead of using pure barley malt, will use other, cheaper grains in its place (corn and rice being most common), resulting in a more bland beverage. Hey, at least they're 'cold tasting'.

Neil: So everyone knows Dan and I are pretty arrogant. In fact, some might even call us Arrogant Bastards (hehe). But to show everyone that we give all beers an equal chance to shine, we decided to eliminate *brand bias* from the equation. Behold, the mighty blind taste test, a judgement tool used to separate aspiring beer connoisseurs (Dan and I) from the pompous fakes (Stella and Heineken lovers). As a new concept, we decided to start simple with the "oh so diverse" pale lager genre (thanks Dan). Anyway, five beers each should be enough for comparison, but for overlap we decided on three easily obtainable beers: Budweiser, Löwenbräu, and Sapporo. For the remaining two, we each selected from our respective regions.

Admittedly as a lover of extreme beers, I was nay content with the thought of re-

viewing lagers. When I heard I had to review five lagers, three of which are *Japanese lagers* I almost lost myself to despair (thanks again Dan). So to keep things interesting, I formulated a simple game to keep my sanity. Basically, I will focus on matching each lager beer to a brand and also give a rating. In contrast, Dan will rate and give his impressions on the taste without any attempt at brand association. This should help put into perspective how image and marketing affect our views on beer. This might sound slightly confusing, but read on and see how it goes!

Dan's results:

1) Pours a clear amber with moderate head retention. Lots of toasty caramel malts and a moderately hoppy finish. Very enjoyable. [4/5] *Creemore Premium Lager*

2) This one is a medium hazy yellow and gives off some very interesting fruity aromas. Taste is full of toffee, fruits, and grassy hops. [3.8/5] *Neustadt Lager*

3) A crystal clear yellow beer, though not much head and therefore not much to smell. Tastes like a basic lager; grainy with grassy hops with little aftertaste. Not offensive, but to be fair there isn't really enough there to cause offense. [2.6/5] *Sapporo*

4) Clear yellow that also doesn't give off many aromas. Nice grainy malt flavours though little to no hops and not enough carbonation. [2.6/5] *Löwenbräu*

5) An extremely pale clear yellow beer with a somewhat floral, but not very pleasant aroma. The flavour has a light grassy touch with little hops and an odd sweetness; not enjoyable really, so I'm thankful for the lack of aftertaste. [1.8/5] *Budweiser*

These are essentially the results I would expect, though I am surprised I did not rank Löwenbräu higher than Sapporo. I've had a soft spot for the 'Lion's Brew' for a long time now, but this is a lesson that your taste buds don't know about all the unlauts on the can.

Neil's results:

1) Non-distinct aroma and pale body, I would usually associate these with typical Japanese brew. Jumping to conclusions, I assign it to Kirin Lager. [2.5/5] *Sapporo*

2) The lightest colour of all, this beer has no offending smell or taste. A hint of hop, maybe. I figured this one is the Japanese lager Sapporo. [2.2/5] *Löwenbräu*

3) Looking at this one, I see a very small difference in colour. The taste reveals a stronger malt profile. I assign it to the only craft beer, Echigo. [3.5/5] *Echigo-Brau*

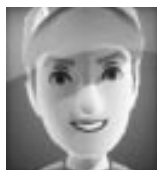
4) Palest appearance, easy drinking with faint malt backbone. Having some past experience with the sight and smell of this brew, I guess Bud. [2.2/5] *Budweiser*

5) By default, my final guess has to be Löwenbräu. With a slight skunky smell, this beer doesn't match my idea of a German lager. Oh noes! [2/5] *Kirin Lager*

After my poor results in the blind taste test, I was truly surprised that I couldn't pick out the German lager Löwenbräu from the mix. Interestingly enough, I had a REAL German down the hall perform the same test (he swore he would succeed). But much to our amazement, he also assigned Löwenbräu to Sapporo! I guess this goes to show that indeed, our views on brands will carry over as bias towards taste. I promise to not bash Heineken lovers as frequently, at least when discussing the lager genre.

Props to hops // Dan and Neil

Future of Gaming Attack of the Fifty Foot Apple!!!



JON MARTIN
OBI JON1138

Welcome to February, hard to believe one month of the term is already over. For this article I'm branching out a bit, with the release of Apple's iPad yesterday (as of writing this) I can't help it. But there will be more gaming talk – don't worry about that.

So the iPad, for all intents and purposes, is a jumbo sized iPod Touch, albeit a more powerful and better looking one. The device will continue the App Store business model which has recently taken off, though whether it will also use existing apps for the iPod Touch is unclear – because the screen is larger the existing apps may end up looking extremely pixelated when blown up. The system looks very similar to an iPod Touch, with dimensions of 9.56" tall, 7.47" wide, and 0.5" thick, weighing in at 1.5 to 1.6 lbs, depending on the wireless model. The system uses a multi-touch 9.7" LED backlight screen, as well as a built in accelerometer and ambient light sensor.

That brings us to the point everyone cares about, price, which of course is dependent on the model and capacity you want. The iPad will be available in two wireless versions – one using free Wi-Fi (1.5lbs) and one using Wi-Fi and 3G wireless (1.6lbs). The other distinction will be in capacity – the main factor in pricing. The system will be available in 16GB (\$500), 32GB (\$600) and 64GB (\$700), adding 3G capability will cost you an additional \$130, plus \$15 or \$30 per month

depending on your contract. Of course all those prices were listed as \$499.99 instead of \$500 for example, but I don't acknowledge the penny savings – just state the actual price, none of this \$14.99 to make it seem cheaper. The iPad will be shipping in March for the Wi-Fi models and April for the 3G models. For more info check out the official site at www.apple.com/ipad.

Well, now that we all know about Apple's latest bid to take over the world, here's my prediction for the future. The budding e-book market is now going to be forced to make a drastic change in direction. With systems like the Kindle reader costing \$300, while only offering grey toned imaging, they are quickly going to find that consumers are paying the extra money to get higher resolution colour imaging, with 3D graphics, the promise of better games and the ability to watch movies and listen to all their music.

Of course the other trend will be for all of the other electronics companies to release their own tablet systems. That is the point I am waiting for, to see if the current trend in Mp3 players continues. I won't hide the fact that I don't like Apple's business model - they sell products with the same or lesser specs for more money than competitors just for the name stamped across the back. The iPod Nano for instance has been rereleased about every year, with minor specification changes and a new form factor. Minimal change, yet everyone has to run out and buy the new version.

So let's get back to gaming. Not much news has come out recently, mainly as a result of the Consumer Electronics Show (CES) having finished and the Game De-

velopers Conference (GDC) coming up. Keep an eye out for game announcements as well as previews of some of the most awaited games – GDC isn't about companies showing off their products and advertising for upcoming sales, it is about showing off what the company and the games they make can do.

I know I have discussed gaming politics before, as well as the unfair blame which gaming receives whenever a nut case goes on a rampage. But I can't help bringing it up when some prime examples come to my attention. After a student at a public school was arrested for making pipe bombs to blow up his school (how do you even come to the conclusion that blowing up your school is a good idea?) a search was conducted of his home – and guess what they found – yep, video games. Alright, case solved, it must have been the video games fault. It couldn't possibly have anything to do with the kid, the family, or his emotional state, anything else was just additional pressure on a foundation of video games.

Then you get people in government making accusations and passing new laws, controlling a hobby that they don't understand and therefore fear. In Venezuela for instance a law was passed last October outlawing video games. President Hugo Chavez recently attacked Sony's system saying "Those games they call 'PlayStation' are poison. Some games teach you to kill." He has also insulted Nintendo for promoting capitalism – which is the root of all evil of course.

Anyway, the world of gaming has a long way to go before these baseless accusations become a thing of the past. In the mean time the best we can all do is

promote the hobby, raise awareness of the non-murderous rampage demographic and show people that not every gamer is insane. Check out a local club – UW Gamers for instance – shameless advertising I know, but they do a great job planning events and showing off the world of gaming. Also, go and see this year's FASS (Faculty Alumni Staff & Students) show "Final FASSity MMX" – the theme is video games – on February 4, 5, 6.

Until next time, Keep On Gaming.

IW RECOMMENDS

Music

Goddess
Emm Gryner

MICHELLE CROAL
3B CHEMICAL

This is the latest album by a Canadian songstress Emm Gryner, whose soulful and upbeat tunes have won her success with British and Irish audience and recognition from Bono and David Bowie, among others. *Goddess* has tracks that sing of love, hope, despair and life through beautiful lyrics with unexpected Canadian references. Her strong voice pairs well with her guitar and piano melodies, and each track has a different feel and atmosphere. Some of my favourite tracks from other albums are "Summerlong", "Almighty Love", "Blackwinged Bird" (*Summer of High Hopes*) and "The Good You Make" (*PVT*). I'll probably be looking out for her next album this year, *Stray Bullets*.

Review Based On The Trailer: The Wolfman



JON RADICE
3B CHEMICAL

Last issue I said there was nothing coming out in theatres in the near future. Surprise, surprise folks; I lied, but now we're at the dregs of the year. From here until Tim Burton's *Alice in Wonderland* comes out at the beginning of March, we have a big dead zone of really terrible-looking flicks. But before I break down and decide to look at a Channing Tatum love story about a soldier falling in love with a conservative college student, we have one movie left to look at.

Benicio del Toro really has had a quiet last few years. Outside of the mega-long

Cuban biopic *Che*, which came out last year, Del Toro has been eerily silent since the 2005 hit *Sin City*. So what has he been up to in all this time? Outside of starring in a *3 Stooges* movie later this year, Benicio has been reviving one of the film legends from the silver age. *The Wolfman* – being one part of Universal's horror troupe in the mid forties with such greats as *Dracula* and *Swamp Thing* – has really not changed much since its inaugural movie was released almost 70 years ago. Benicio, with one of the most Central-American names and appearances in Hollywood, has to return to his hometown of a sleepy English village upon news of his (much more English) brother's death brought out by a malicious ravaging. At risk of spoiling the movie for you, everything remains intact from classic werewolf lore; silver bullets,

full moons, pants that refuse to rip with the rest of the costume, are all very apparent in this movie. No strange new twists, just sticking to the typical monster movie formula that had made it successful for these past seven decades.

And you know what? It kind of works. Looking at the trailer, it gives me a little glint of hope coming from same guy that directed *Jurassic Park III*. This movie does not set out to be an innovator in any sense; rather it seems to borrow from previous films to add them to make at least an entertaining trailer. By giving the Victorian Era the same hint of grunge that was present in *The Prestige*, adding camera effects that are more real feeling than, say, *Transformers 2* constant jittering, and by keeping the CG effects tasteful and not overused, the movie comes off as a much

more fun ride than if it was over-hyped as a typical summer blockbuster.

Despite being terribly un-English, Benicio is a great actor. Put him together with Anthony Hopkins and Hugo Weaving (of *V for Vendetta* fame), and that's a pretty good line-up for a flick. It's not going to be remembered by the time the snow thaws out. But it is more than enough to tide movie-hungry fanatics until something with a little more notoriety comes out. I won't exactly recommend you to drop everything you're doing to go watch it, but if you're looking for a cure for the winter blahs, I would kindly point you in that direction. *Wolfman* howls onto the screens on February 12th, which gives you a bit of time to re-watch *Avatar* a few more times before you go out to see this one.

Book Review: The Memory Keeper's Daughter



SARAH AHMED
3A ELECTRICAL

Book Review: The Memory Keeper's Daughter

Author: Kim Edwards

Year: June 2005

During academic terms, I find myself struggling to find time to even glance at a newspaper, let alone read a novel (of course, I am not referring to *The Iron Warrior*, whose every article is a must-read). But this book, *The Memory Keeper's*

Daughter, is a challenge. It is not a throwaway beach read, and there is not a lot of action. However, once you crack open this novel, it is worth every ounce of effort.

The author, Kim Edwards, has a highly descriptive, fluid writing style, and a well developed story line. You can hardly tell that this is her debut novel. Edwards has a gift for writing characters you can sympathize with - this comes into play during the early climax of the book when Dr. Henry makes a fatal decision.

The novel begins in 1964, with Dr. David Henry's wife going into labour during a blizzard. With only the aid of his

nurse, David finds himself delivering his own twins. As soon as they are born, he notices that while his son is born healthy, his daughter suffers from Down syndrome. Knowing firsthand what comes with Down syndrome, David makes the choice to spare his family that pain. He gives his daughter away and tells his wife, Norah, that the daughter was still-born.

The nurse, Caroline, is given the task of putting the daughter in a home. Caroline finds it incredibly difficult and chooses instead to raise the baby herself. She leaves town and raises Dr. Henry's daughter, named Pheobe, in Pittsburgh.

Thus, the parallel lives begin. David, Norah and their son, Paul, struggle living in a family where the loss of Pheobe echoes destructively. While Caroline copes with being

the single mother to a child with Down syndrome.

David's decision proves disastrous for his family. It begins a series of lies and betrayals that accumulate through the years as each member of the family tries to cope with the loss and pain in their own way. For David, it is through photographs – which he refers to as memory keepers.

The Memory Keeper's Daughter is a vivid book, and a detailed character study. It shows the unravelling of family secrets over the years. Kim Edwards creates her characters intricately, never neglecting to give them fully realized personalities and complete backgrounds.

As is done with all the good books today, *The Memory Keeper's Daughter* has been adapted into a movie. The movie features Emily Watson as Caroline and Dermot Mulroney as Dr. David Henry. Rotten Tomatoes has no ratings on the movie, but seeing that it was made as a TV movie, I would say stick to the novel.



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The Iron Crossword

MICHELLE CROAL
3B CHEMICAL

Across

- Most places in the plaza use this
- Paper slip, usually for food/drinks
- Brew Man Group reviews these
- Influenza-like illness (abbr)
- Luminous field surrounding a person
- A large bundle or package (pl)
- Strict or harsh, superlative
- Two-piece swimsuit
- Verb on microblogging website
- Russian monarch
- Usually, "you must reap what you ___"
- Steven Hawkings suffers this condition (abbr)
- Steve Jobs is of Apple
- Convex, shield ornament
- Coke, Sprite, Fanta
- Relative of the swordfish (pl)
- Common English verb
- 1/2 of a towel set
- First month of Jewish calendar
- Hewlett's counterpart
- Session at the end of a case or mission
- Basic, ionic salt
- Heartburn relief
- Sports mediator
- Put these under a too hot pot (2 wds.)
- Before it's a corpse
- Bordered by the Caspian Sea and the Persian Gulf
- Laurier Business school (abbr)
- Campus building designed like a brain
- A sleep phase, usually with dreaming
- Opera solo
- Red pigment, from clay
- Classical Japanese drama
- September's birthstone
- A Musical half note
- Hollow hoof sound
- Center, prefix
- UK Prime Minister, ___ Blair
- Cosmetics and skin care company
- Association of Caribbean Students (abbr)

Remember That Time?



CHAD SEXINGTON
4U MANGENEERING

Howdy Sexy Readers!

When we last left each other I was far off in the midst of a frozen tundra-esque lake deep in the heart of northern Canada. It was a cold and lonesome road of hewn trees felled by the mighty axe strokes of the legendary Mountain Man of the north, whom I had set out to find and court his wisdom. I have heard tales of his glorious log cabin atop the highest mountain in the land.

I am going on a lumberjack hunt. But I'm not scared. I come to a mountain. Can't go around it, can't go under it, can't go through it, have to go up it. And so I climbed the mountain with only my wits and some pine trees about me.

Looking up the mountain ahead I saw a winding path leading to a tall cliff. Atop the cliff, was another cliff, and above that was lost in the mists of the clouds because really, I don't have super-vision. The winding

path was rocky and old, almost like boxer I had once known. It took me 2 days to climb to the summit of this bunny hill. Once I had reached the end of the path, it opened into a frozen ice hockey rink where a single goalie waited. "You must score to ascend to the next level" he said. Unawares that I would have to be playing hockey, and wondering how long the guy had been standing around in hockey gear waiting for someone to come along, I quickly snapped a shot into the net. "Chad Sexington always scores, just ask the ladies in my fan club," I replied, and I set myself to the task of ascending the icy cliffs behind him.

Many hours later, after climbing nearly all the way to the top of the first cliff. I stopped for a cup of tea. Indeed, what is better than a cup of tea while ascending what appears to be the highest mountain in the world? How I boiled the water you will have only to guess, as it is a secret of lumberjacks worldwide but it involves a penguin. "Where is this place?" I asked the man waiting over the lip of the cliff top (as you might have guessed, this is going to become a trend). "It is over 9000 feet

up," he replied. "But you must climb yet further before you will reach the Mountain Man. I have no especially difficult task for you because it's my day off, but I must ask you if you want to continue on this trek. It is not too late to turn back now, and take up a different life." "Nay," said I, because today was the day of sounding like an old-timey guy, "I shall continue in my quest for Camelot, I mean, the Mountain Man."

Ascending the next portion of the cliff was especially difficult. In fact, it was one of the most difficult things I have ever done. There were blizzards, and lizards, and hurricane gales. There were landslides and log rides and large humpback whales. At some points I thought that I was going downwards and back, then I paused for a moment and ate a small snack. Back to the wall, I climbed for some time, and then came the end of the rhyming cliff-climb.

Pulling myself over the final ledge and into the mists at the top of the mountain, a third person awaited. A fair maiden who would surely be the downfall of any soul that failed to resist her charms. It would take many years of experience in the ways of the

ultimate manliness to move past this final test and she knew it to be true. To her dismay, it was the Chad who had climbed up the mountain this day, and knowing her not to be of Sicilian descent, he was not afraid of her next statement. "You must defeat me in a battle of wits!" she claimed, and so the games began. Two nights later she lost to the gentleman who had ascended thus far. "Checkmate!" I called and we shook hands goodbye. "Come back any day Chad," she said with a sigh (one more for the fan club today wondered I).

Behind the next cloud bank, I saw an escalator with a sign next to it. "NO RHYMING" and right below it: "This way to the Mountain Man" suggested an arrowed indicator. Who was I to disagree this far into a narrative? I boarded the stairs.

I have come far to find the legendary Mountain Man and I shall not turn back until his wisdom is ours. Good things come to those who persevere. Remember kids, there is a metaphor for this story, so hopefully it's got you thinking.

Until next time,
Stay Sexy

The Fashion Files



AMANDA LEDUC
3A MANAGEMENT

I definitely predicted correctly - this winter has turned out to be an incredibly fashionable term. I have seen some well dressed folks in the hallway these past couple of weeks.

This week, we focus on two of the hottest fashion trends for the winter 2010 season and one timeless piece: leather, chunky knits and argyle. Pop quiz, which one is the timeless piece and which ones are the trendy ones?

Leather – Yousif

Yousif pulls off the style of the leather jacket beautifully with this look. This trend is wonderful for the chilly winter season.

Yousif isn't the only one rocking the leather style; as I look around campus, I see so many engineering students wearing these lovely trendy jackets. In fact, I see more engineering students in these jackets than all other faculties combined; therefore, engineering students must be the most

fashionable students on campus, right?

Chunky Knits – Kim

Kim looks awesome in this sophisticated look completed by a chunky knit top. Knits

are the perfect winter wardrobe staple. As modelled by Kim, knits can be worn with nice pants to make for a more professional and polished look; however, they can also easily

be paired with jeans to create a refined yet warm and comfortable look.

Argyle – Matt Schokking

Matt wears a classic argyle sweater in this timeless genteel look. Argyle works with dress pants for interviews or more casual bottoms for that ever-so-hot "nerdy" look. I must admit I have always been partial to the look of an argyle sweater or sweater vest. I really should buy more argyle...

Whether you follow the fashion trends from the runways or create your own style, I'd love to see it! Swing by Novelties from 11:30am – 12:20pm on Tuesday or Wednesday and show me that engineering does have style to be featured in the next "Fashion Files" article.

Stay Classy,
Amanda
CFO



Tim Annan

Down

- 1. Water suspended in air target, 1945
- 2. A large number or amount 36. Grass-like plant near rivers
- 3. A small kiss (3 wds.) 37. Sketchy, doubtful
- 4. Ala ___ (menu listing) 39. Mongol Emperor, Genghis ___
- 5. spect of colour, like saturation 40. "___, where's my car?"
- 6. Classes countdown until this 42. Most common hot sauce
- 7. Threadbare rags 45. Pressure unit
- 8. Mamma Mia! 46. Composer Johann Sebastian
- 9. A mad scientist's hideout 47. Aggravate
- 10. Almost as big as a moose 48. A stack, usually of paper
- 11. Earthquake (rare) 49. Perimeter or circumference
- 15. A stuck up person 51. Remembrance flower
- 17. Unagi or electric (pl) 53. Related or alike
- 19. The other half of Jima 54. Icy, with large distinctive crystals
- 22. Latin Sun 56. Musician Clapton
- 25. The Jack of Spades is one of 52 57. Communists or revolutionaries
- 26. Russia, formerly 59. Similar to Crazy Eights
- 27. A baby's first word 61. Every last one
- 28. Spoken but not written 62. Power of attorney (abbr)
- 29. You might deserve this if you have value
- 30. Articles, pieces
- 31. Pen tip (pl)
- 33. X-box first person shooter
- 35. "Little Boy"'s

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			66					67					68		

Thumbs Up/Thumbs Down



Thumbs down to Rogers for raising overcharge prices from \$25 to \$50 starting March 1st



Thumbs up to AbeBooks for cheap international editions of textbooks



Thumbs up to UW hosting OEC



Thumbs down to camouflage pants and PJ pants (and other fashion crimes in general)



Thumbs down to Canada Post for raising stamp prices



Thumbs down to the cold weather BUT Thumbs up to the snow



Thumbs down to the new CECS business cards

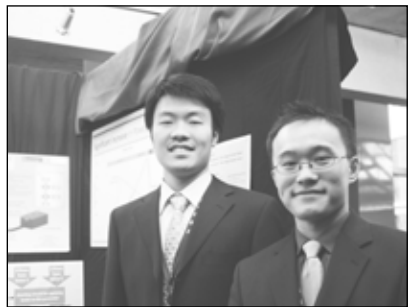


Thumbs up to CnD being open during Reading Week

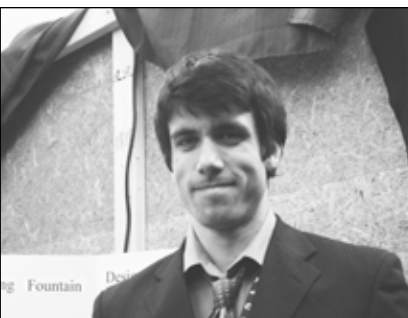
THE IRON INQUISITION

“What is the most outstanding thing about UW?”

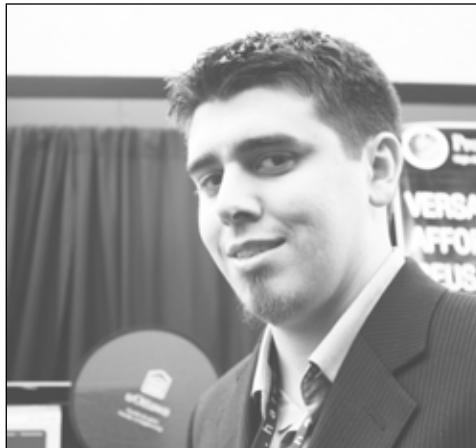
Amrita Yasin & Mikayla Micomonaco, 3B Chemical & 3A Electrical



Jacky Lau & John Zhuang
University of Toronto, 4th year Mechanical
“It’s more colourful than UofT!”



Nemanya Petrovic
Ryerson University, 4th year Mechanical
“DC looked like a jail when I walked in.”



Anthony L.
University of Ottawa, 4th year Software
“I am impressed with the high-tech campus.”



Roman Dabrowski
Ryerson University, 2nd year Aerospace
“I like the people. They are cool.”



Junior Team
McMaster University, 2nd year
“The size and complexity of the buildings”

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