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Beasts of Legend!

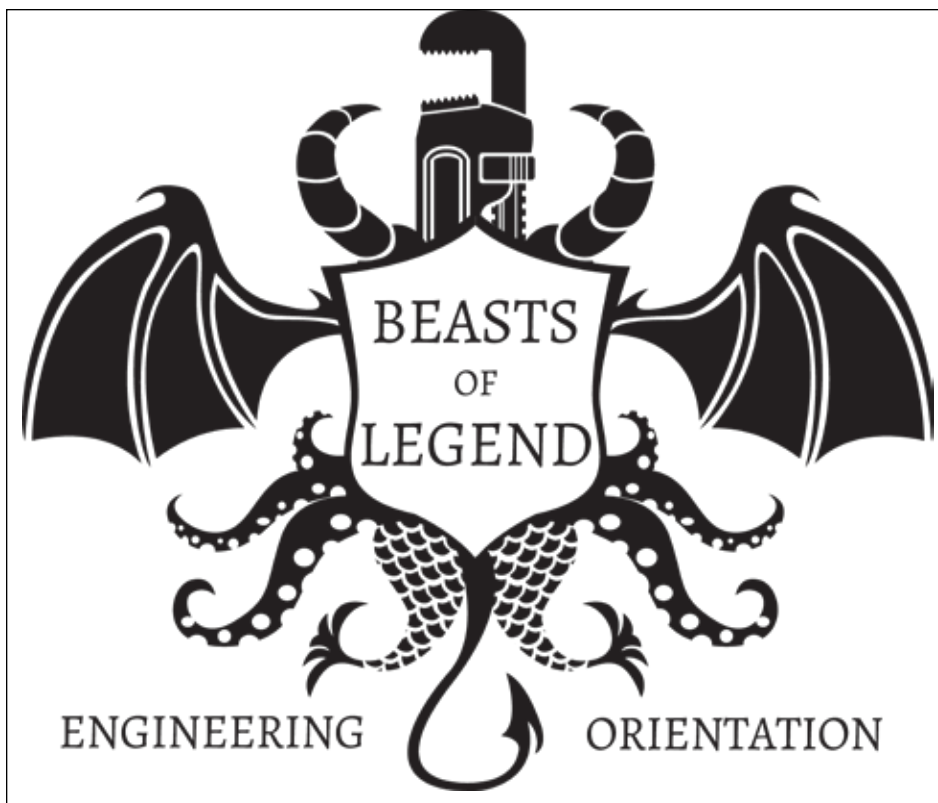
Fangs & Claws Out to Best Your Competition

ADELE CHUI AND HOLLY ANN LESAUVAGE
SUPERHUGES

Welcome to Waterloo Engineering! We know it's exhilarating and maybe even a little scary to be here - you're starting school at the greatest Engineering school in Canada, if not the world! You may have come here from another country or another province, or maybe you're from right next door. No matter where you are from, you're here now and that is what matters.

Head on over to engorientation.uwaterloo.ca to learn more about the leaders that will be guiding you through your first week at the University of Waterloo. There, you will also find detailed information about the events that will be happening this week! During the week, this website will track your colour group's progress and scores as you advance through the many challenges that await you.

When you arrive in Waterloo, you will receive an Orientation Kit filled with a lot of useful information, and some Orientation



opportunities are endless! Other students clubs such as the Engineering Society, and Women in Engineering (WiE) will also be present, along with a few companies that sponsored Orientation Week.

We, as SuperHuges, are half of a student group known as EngFOC, and have spent over 10 months planning Orientation Week for you. We know how overwhelming the transition to University can be - we were first years once too! What you need to know is that our community here is big, but full of heart and excited to welcome you. Orientation Week is a fantastic time to make friends both in and out of your program, and to try something a little outside your comfort zone. We have an incredible team of upper-year students that are fully prepared to support you as leaders during the week, and beyond, as friends.

We hope that you take this opportunity to do something that challenges you, get involved in our vibrant community, and honestly - just enjoy yourself!



swag! You will also get a colour group shirt to help you identify your Beast of Legend team and a magical wristband that allows you to participate in Orientation Week! Get ready for a week of excitement and new friends with your leaders as your guides and your HQ as your home-away-from-home.

On Tuesday, you'll earn your very own iconic Waterloo yellow hardhat, and meet our Engineering Society (EngSOC) Presidents, the infamous Education Committee, and our Dean of Engineering, Pearl Sullivan. If you're lucky you may even catch a glimpse of our beloved mascot, the Tool!

Wednesday, you'll join us bright and early for our annual Aerial Photo, as we

take a picture with all 2000 Engineering first year students and Orientation Week leaders! Immediately after Aerial Photo, you'll get the chance to put your engineering skills and ENGINuity to the test during Junkyard Wars, by turning regular, boring, old junk into fantastic contraptions - think catapults, bridges, water filters, circuits and much much more. This event has something for everyone! One person's trash is another person's treasure.

On Thursday, it's your first day of lectures! If you have time, drop by the Student Teams Showcase at the E5 Sedra Design Centre from 4PM to 6PM to discover the many teams we have on campus -rocketry, solar-powered cars, a toboggan made from concrete - the



LISTEN UP, FROSH!

HEADCOM
EDCOM LEADERSHIP

The easy part was getting here, now you're going to have to prove that you have what it takes to be a Waterloo Engineer. You have a lot to learn, and not a lot of time to learn it, so pay attention, Frosh.

We are HeadCOM, and we are in charge. We control EdCOM. You have one job this week, Frosh, one thing you need to remember—IMPRESS EdCOM. We cannot stress

enough how important this is.

EdCOM is the Education Committee. We are your guides and superiors. We are a dedicated group of senior students who are the best and brightest that Waterloo Engineering has to offer. This means that we are the best and brightest, PERIOD.

EdCOM participates actively in the Engineering Society, WEEF, and many of the student teams you will hear about on Thursday. EdCOM is everywhere, EdCOM does

everything, and EdCOM is NOT easily impressed.

EdCOM will award you your yellow hardhat, if you earn it. This means that EdCOM decides if you are worthy of being a Plummer; a true Waterloo Engineering student. Once you have your hardhats, we will keep testing your ENGINuity during JunkYard Wars.

On Sunday during EngSoc Day, based on everything we have seen, we will decide who has won the week, and who did not make the cut.



You Belong With... This University



GABRIELLE KLEMT
INCOMING
EDITOR-IN-CHIEF

It's been two full years since I first stepped into my res room in SJU, full of hope and excitement and readiness to meet new people and learn new things. I'd be lying if I said that I wasn't also filled with dread at having to start all over again. I was one of five in a graduation class of 400 to come to Waterloo. Although one of my longest friends would also be in Waterloo Eng, we were living in different places on campus. We were in different programs and for me that might as well have meant we didn't even go to the same university.

I'm lucky, every summer I'd be packed off to sleep-away camps, so the prospect of being away from home for an extended period of time was supposed to be no big deal. Still, when the door closed after my mum's last "Good luck honey, I love you" I felt a twinge of regret, I wanted to yank open that door, run after her and say "Take me back, it was a mistake, I can't do this!!" But I didn't. I sat on my bed and shortly thereafter in came my new roommate and the whirlwind of O-Week began.

For many of you this is your first test of "adulthood". Can you wash your sheets, eat healthy, and stay on top of your studies without someone breathing down your neck about it? Maybe not at first, and maybe not

for a while. You'll feel homesick and overwhelmed by classes. You'll call your parents and Skype your friends about the stress and the pressure but then something will change. It's gradual so it's likely you won't notice it happening, but one day you'll take a step back and you'll say "I belong here".

It might be during dinner with some random people you've never met, it might be midnight messing around in the computer lab working on a group project, it might be at a party or at an EngSoc event, but one day you'll see that despite the terror you feel today, you are no longer just a "first year". You're a Waterloo engineering student. You'll know that this is your campus, these other students are your fellow students, and this is your future that you are living.

I don't want to seem like I'm saying one day everything will be perfect, because it won't be. We all feel the fear of being alone, of missing our families, of not passing or of falling behind; what I'm saying is that one day you'll stop noticing these things as much because you'll have better things to focus on. Things like friends and that one class you LOVE and extra-curriculars. Perhaps your fun indulgence will be a shoe-tag class or the bi-weekly EngSoc meetings (they're fun, I always look forward to them!), maybe you'll come join me at the Iron Warrior office (I hope you do!) and we can chat and drink tea like great chums.

The thing is, everyone tells you about the awesome friends you'll make in university and about how these will be the best years of

your life. I can tell you from experience that it's hard to make the people you meet during O-Week into friends. Finding your "group" is a challenge. Somehow though, friends do come. I mean hang out long enough in PO-ETS and you'll have a huge group of new friends!

Whatever you do, don't put pressure on yourself to constantly be having the time of your life! You're under enough outside pressures as it is, so know that everyone around you is struggling with the same feelings and that this is just part of the uni experience, we just don't talk about it as much. The time of your life comes when you're least expecting it, so less you stress the better your experience will be.

Before I go, and though you will read this 1200 times in this issue (I totally counted because that's my job) your health and happiness are the most important things. If you find no joy in something that you're doing, talk to someone and make a change in your life, we have so many resources on campus for just such things.

Setting out on this new adventure is so awesome and despite the trials and pains I had to go through to be where I am today I would go back to O-Week in a heartbeat! I wish you all the best of luck in your new journey, as the old Irish say: May the road rise up to meet you and may the wind be always at your back. And may you join the Iron Warrior team! (Shameless plug)

The Stars Incline Us, They Do Not Bind Us



VINCE MAGAS
OUTGOING
EDITOR-IN-CHIEF

Hello class of 2022! Firstly, Congratulations on making it into the UW Engineering and welcome to the University of Waterloo! I hope you're all excited and proud to be engineering students here at UW. Secondly, let me introduce myself, I am Vince a 4A Management Engineering student and the current outgoing Editor-in-Chief of the Iron Warrior (which is the newspaper you are currently reading right now!) I have been with the paper since 2012, joining all the way back when I was in 1B! Despite it being years ago, I still remember Orientation Week and how exciting it all was! So hopefully you'll allow me to impart a couple of tips for this exciting new chapter of your life. Just a couple of things I've learned and especially enjoyed in my time here at UW and with Engineering.

Your adventure pretty much starts the moment you move-in to your new home-away-from-home and with orientation week. You'll encounter tonnes of new people and without a doubt discover a lot of new things. So that being said, make sure you all take

a stroll around campus and your respective future lecture / lab buildings, these halls will pretty much be your home for the next five years. Also take special note of any clubs, design teams, and societies (*ahem* EngSoc *ahem*) that you see in these next few days!

Personally, I have found first year to be the most difficult out of all my terms thus far, as a high school student I was actively involved in a lot of extra-curriculars, and trying to take on the same number of hobbies from highschool along with first year's rather rigorous all-day class schedules was a struggle for me! If you're like me, I strongly suggest taking it slow and not to rush getting involved with everything all at once. I still strongly suggest you get involved though, a lot of clubs and design teams are incredibly accommodating and understanding when it comes to first years and they'd allow you to sit in without a lot of time commitments.

My next piece of advice is not to take things too seriously! I'm sure a lot of you have been indoctrinated to be competitive and perhaps many of you have been the top of your class or even year. Things may be slightly different now that you're here. You're getting thrown in the deep end, and a lot of your cohort will also have been some of the best in their respective schools. In any

case, don't take things too seriously! A lot of students will experience grade shock, where they come from all 90s and then suddenly face their first 60 or 70. It's totally okay. I personally feel that its better to try to learn the material and try to have fun.

My last piece of advice is to try to make the most out of everything and not to get discouraged in adversity. Its University, you'll meet folks who don't have a care in the world, and folks who take every little detail as if it could end the world. With either of them, make the best of your time, and the experience. Your university life is what you make of it, and what matters is how you live it, through the easy terms and the difficult ones. This is the perfect chance for you to grow and experiment with who you want to be. Its also the perfect time to try new things and get out of your comfort zone (I certainly wouldn't be writing this now if I hadn't)!

If I could tell my first-year self one thing it would be this: Relax a little, you control how your university life turns out and its what you make of it. There's no cookie cutter university experience. You make it up along the way!

Best of luck to all of you 2022s, here's to an exciting and new chapter you'll write in your lives!

THE IRON WARRIOR

The Newspaper of the University
of Waterloo Engineering Society

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

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

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

Mail should be addressed to The Iron Warrior, Engineering Society, E2 2347, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x32693. E-mail can be sent to iwarrior@uwaterloo.ca

Class of 2022, Welcome to Waterloo Engineering!

PEARL SULLIVAN
DEAN, FACULTY OF ENGINEERING

I am very pleased that you have chosen the University of Waterloo to pursue your postsecondary education. Once again, we have attracted an impressive cohort of the brightest students to our first-year engineering programs, and you should take pride in joining our Faculty. You will be in the company of top researchers and teachers, dedicated staff, and motivated undergraduate and graduate students.

The Faculty values the importance of a vibrant, engaged student body, and the contributions our students make to Waterloo Engineering, the university, and the community.

The success of our students—academically, on co-op work terms, and in extracurricular pursuits—is a major contributor to our excellent reputation, and so we look for students who are well-rounded and passionate. The result is an

involved student body, home to active student societies, competitive student teams, service-minded organizations, as well as newspapers, clubs, and bands. I encourage you to get involved in one or more groups or activities that inspire you and will enrich your Waterloo Engineering experience. Over the course of Orientation Week, you will be introduced to many new faces, a lot of new information, and a diverse offering of new opportunities.

During this week and throughout the year, you may feel overwhelmed at times, adjusting to new expectations for academic and workplace performance, learning the ropes of our co-op program and choosing among the abundance of extracurricular activities.

Always remember that there is a strong support system available to you. The First-Year Engineering Office is an invaluable service, here to help with your transition by offering academic

and personal counselling, as well as tutor sessions and upper-year mentors. Your professors and teaching assistants are also excellent resources, and upper-year students can provide important insight. Take the opportunity this week to connect with your orientation leaders. After all, they were in your position not that long ago!

In the next few years, you will be presented with different career possibilities. Whether you aspire to work for a specific industry, get involved in innovative research, start up your own company, or all three, there will be opportunities to pursue your aspirations within your undergraduate program. Get involved and learn as much as you can. Once again, class of 2022, welcome to our Faculty and enjoy your Orientation Week!

Sincerely,
Pearl Sullivan
Dean, Faculty of Engineering



ArchFoc Hello from the HighArch

LAURA DEACON
ARCHFOC

Hello! My name is Laura Deacon and I am a Federation Orientation Committee member at the University of Waterloo. I, along with the rest of the Orientation team, have been working to give you an incredible introduction to the School of Architecture. Architecture Orientation 2017 is going to include lots of fun and exciting activities, and many opportunities to get to know all of your future classmates. I've taken on a three-pronged approach to Orientation - an opportunity to get to know the City of Cambridge, getting a feel for the broader scope of University life, and learning about the narrow scope of Waterloo Architecture university life. If you're reading this, you've hopefully already received your Orientation kit. Dig through it and take a look at all your new stuff! It's just a sneak peak of what's going on this week and for the rest of the year.

We're kicking off on Sunday at the school with registration and introductions. Here you're going to meet your future classmates! Soon after, you'll meet your leaders - the Bigs and Huges - who will be with you throughout Orientation Week and the fall term. All of the leaders are second-year students who were in your shoes last year, and are there to answer any and all questions you may have about University life. Later on, we'll play games in Dickson Park and race cardboard cars around the school.

Monday will be focused on acquainting you with Waterloo Architecture and its

surrounding neighborhood. In the morning, you will embark on an incredible adventure known as the Instagram Challenge! In the evening, it's time to relive Art Attack with a flurry of glue and paint at Art Night. There may even be a little dance party!

On Tuesday, we're making our way up to Waterloo to join the rest of the Faculty of Engineering. To spot Engineering amongst other faculties' Orientations, look past the brightly colored t-shirts and look for purple-dyed skin. We're going to take part in the Engineering tradition of earning our hardhats. You will get your yellow hardhats, and watch your leaders earn their green and red ones too.

On Wednesday, we'll be back on the Architecture campus. Wednesday will be tailored more towards the academic preparation for Waterloo Architecture. Here, you'll have the opportunity to get to know some of the amenities offered on the Architecture Campus, become qualified to use the workshop, learn how to use the school printers, have all of your questions answered, and much much more. Wednesday will also give you a chance to get to know some of the faculty on the Architecture Campus. The day will be wrapping up with some relaxing stargazing and s'mores.

Thursday will be your first day of the school year, so we will let you focus on the most popular class that is studio.

Friday is also a school day, but don't worry: we know how to make it fun! After school wraps up, we will be having a family dinner to give you a chance to sit back, relax, enjoy great music and some even better food. Friday will be wrapping up



Your HighArch Just Hanging Out



right after dinner to give you an opportunity to settle into Cambridge and wind-down from the busy week.

Saturday will conclude Orientation Week with the Black & Gold Pride Games, and our semi-formal Monte Carlo to top it all off (don't forget to bring your dresses and to polish those shoes!).

As the Architecture Federation Orientation Committee (ArchFOC), I'm here to help make this week as worthwhile as possible. Getting adjusted to life in Cambridge is both exciting and challenging. As you and your classmates embark on your journey here in Cambridge and as a student within Waterloo Architecture, I hope to acclimatize you as best — and as quickly — as possible.

If you have any questions, feel free to ask me, or anyone else in yellow jackets. I hope you're geared up for the adventure that is Orientation Week! Follow Orientation though the week on Facebook at Waterloo Orientation - Architecture, Instagram @ archorientation and #archUWOW17.



What is the Engineering Society?

**ABDULLAH BARAKAT AND
RACHEL MALEVICH**
ENG SOC PRESIDENTS

The Waterloo Engineering Society (commonly referred to as EngSoc) is the official representative body for all engineering undergraduate students at the University of Waterloo. It exists to support you academically, socially, and professionally during your time here at Waterloo. EngSoc serves its members in three main ways: representation, services, and events. You can find an overview of these points in this issue of the Iron Warrior or at engsoc.uwaterloo.ca.

EngSoc is led by an Executive team who work on your behalf with the Faculty of Engineering, the student union, external engineering groups and many more organizations. It is up to the Executive to make sure

that your voice is heard and that you are getting the most out of your undergrad. The EngSoc Executive consists of the President, VP Academic, VP Student Life, VP Communications, and VP Finance. They are all introduced in this paper but as a whole the Executive are responsible for ensuring the Society runs effectively and efficiently to better serve you, the students.

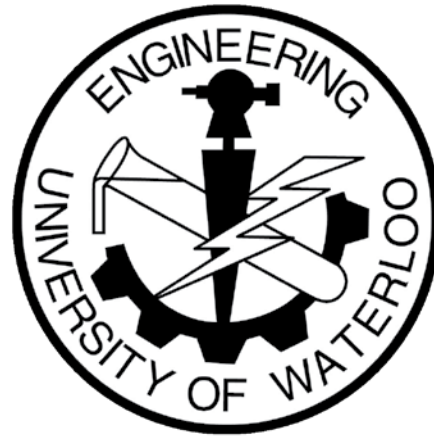
More important than the President and the other Executive is the Engineering Society Council. Council is the group that makes all of the decisions for the Society whether that be a stance on how the engineering students feel about a given topic, or how to spend the \$60,000 budget each term.

Council is made up of two representatives from each on-stream class, together sharing one vote. Their job is to attend all of the council meetings (usually every other Wednesday),

vote on their class' behalf, and to bring forward any concerns their class has about their University experience. They report back to their class about what is happening within the Society, including the upcoming events

and services, as well as any of the important issues that are being brought forward. You don't have to be a class rep to attend Council meetings; they are open to everyone and we encourage anyone interested to come out! Attending meetings is the easiest way to get involved in the Society and to stay informed on what is happening in the Society, Faculty, and University. Interested in being a class rep? The EngSoc Executive will be coming around during the first two weeks of class to run elections. Being a class rep is a great way to get involved and gain experience within the Society!

The Society is always looking for new initiatives and improvements. So we encourage you to get involved or to just let us know what you would like to see! Drop by the EngSoc Office any time and pitch an idea, or just say hi!



Welcome From the Presidents

**ABDULLAH BARAKAT AND
RACHEL MALEVICH**
ENG SOC PRESIDENTS

Hi Class of 2022! We are your Engineering Society Presidents: Rachel Malevich (B-Society) and Abdullah Barakat (A-Society). We are both very excited that you are here and we can't wait to meet you!

As Presidents, we are the face and voice of the Engineering Society and our main role is to represent you, the students. We advocate on your behalf to the faculty, the university, the student union, and to other groups that affect your undergraduate experience.

To do this effectively, we need your input! During the term, feel free to stop us with any questions or concerns you have about school, university issues, or the Society itself. You can usually find us in the EngSoc Office (CPH 1327) or our student lounge, POETS (CPH 1337). You can also reach both of us at president@engsoc.uwaterloo.ca.

We can also be found at all of the different events the Engineering Society runs each term. The first event is coming up quickly on Sunday, September 10th. It's EngSoc Day! Each year we run a Charity Head Shave, dunk tank, and BBQ starting

at 11:00 am outside Carl Pollock Hall (CPH), followed by Beginning of Term Party (BOT) in POETS at 8 pm! We cannot wait for this year's EngSoc Day, and are looking forward to meeting all of you! The rest of our events can be found on the EngSoc website, engsoc.uwaterloo.ca/event-calendar/, so make sure to check it out! There are a variety of events that run each term, and they're a great way to make friends, have fun, and get involved in university!

EngSoc is a wonderful community to be a part of, and we hope that you are all as excited to get involved as we were in first

year. We have opportunities for everyone, and if there is something that you notice that we aren't doing, let us know! We are always looking for new ways to make EngSoc better for everybody.

If you want to know more about the Society and don't want to wait until classes start, we will both be around for Orientation Week wearing white hardhats and would be happy to answer any questions you have!

We look forward to working with you, and we want to wish you the best of luck for your time here at Waterloo. Hope you have an amazing Orientation Week, and see you on Tuesday!

Come for the Dollars, Stay for the Dollars

Meet Your Vice Presidents Finance

**KATIE ARNOLD AND
MICHAEL BEAUCHEMIN**
VICE PRESIDENTS FINANCE

Welcome to Waterloo Engineering! We are the Vice-Presidents Finance of the Waterloo Engineering Society, Katie Arnold and Michael Beauchemin! Katie, B-Soc's VPF, will be serving you this fall, and Michael, her A-Soc counterpart, will take office in the Winter. We are in charge of managing the Engineering Society's funds in ways that can help improve your experience as an engineering undergraduate student at Waterloo!

One of our main responsibilities is the creation of the termly EngSoc budget. This budget (funded by the \$16.15 EngSoc fee that you pay every term) is where we get all the money for the great events, services, and programs that EngSoc has to offer. Once the budget is approved by the EngSoc Council, our Directors are all clear to roll out the awesome events! Another large part of our portfolio is managing the major service operations that EngSoc runs: Novelties, RidgidWare, and POETS. Information on these services are explained in this issue of the Iron Warrior. We are in charge of handling the day-to-day operations of these services, maintaining the inventory within Novelties and RidgidWare, and managing our student lounge such that everyone feels welcome and included.

The VPF is also responsible for the sponsorship initiatives run by the Engineering Society. Each term, a certain percentage of the budget is allocated towards sponsorship, to which any student group can apply for funding. It is exciting to see the innovative student body working on a number of incredible projects. A committee of students, overseen by the VPF, then decides how the money will be allocated in order to best benefit the engineering students at Waterloo.

We also chair the Engineering Capital Im-

provements Fund (ECIF) Committee each term, which is a fund used to make purchases to improve engineering student life at Waterloo. Items such as new furniture for POETS and a bike repair station (seen near the CPH-DWE Bike racks) have been purchased through this fund. The fund is always taking applications, so if you have something that you think we should purchase, let us know!

Last but not least, we are in charge of the Student Deals program. If you've paid your EngSoc fee for the term, you can go to the Engineering Society Office in CPH and get the EngSoc Student Deals sticker on your WatCard! With this sticker, you can go to various community establishments get exclusive deals! We currently have arrangements with about ten different stores and restaurants (e.g. Crossroads Board Game

Cafe, Mongolian Grill, and Al Madina) and are always looking to expand the program.

We are very excited to have you as part of our engineering community. Thank you for taking the time to read our article, and we hope that you enjoy everything that EngSoc has to offer. Feel free to check out our website, engsoc.uwaterloo.ca, to see what's going on. We wish you a great Orientation Week and hope you say hi on campus!



A-Society, from left to right: Céline O'Neil (VP Communications), Steven Jia (VP Communications), Pat Duong (VP Academic), Michael Beauchemin (VP Finance), Abdullah Barakat (President), Mariko Shimoda (VP Student Life)

Academic Representation, Advocacy and Services

A Warm Welcome from Your VPs Academic

**PATRICIA DUONG AND
ANDREW MCBURNEY**
VICE PRESIDENTS ACADEMIC

Hey there, Class of 2022! We're Patricia Duong (Pat) and Andrew McBurney, and we are your Vice-Presidents Academic. Andrew will be on term in the Fall (B-Society), and Pat will be on term in the Winter (A-Society). Part of our job is to ensure you have the necessary resources and environment to succeed academically in school, and on co-op. Between the two of us, we're responsible for representing

and advocating for all undergraduate engineering students at various faculty, university-wide and co-op related councils.

There are plenty of ways for you to get involved with regards to academic advocacy in your first year. Within your first two weeks on campus, your class will elect academic reps for the term. Their job is to periodically meet with your profs, and voice any concerns your class may have. This is an excellent chance to get involved right away, with no experience required! We'll have a first-year academic rep meeting where we'll discuss

issues that affect all programs, and provide advice on being a great class rep for your cohort.

In addition to advocating on behalf of students, we help to provide academic resources for your benefit. The Society offers a variety of services to help you succeed, such as our online exam bank. We have old midterms and final exams for almost all of your core courses, many with solutions, so it's a great place to find study material. We also help run course critiques each term, where you get a chance to provide feedback on both your

courses and professors.

You don't have to wait until the end of the term though! It's our job to gather student feedback throughout the term, so you'll receive various surveys from us asking for your opinion on things like co-op, workload and scheduling.

You can also reach us at vpacademic@engsoc.uwaterloo.ca, or in the EngSoc Office (CPH 1327), if you have any questions, concerns, or just want to chat about how first-year's going. Good luck, and we're both looking forward to seeing you on campus!

EngSoc External Relations and Communications!

Hello from your VP Communications

**MELISSA BUCKLEY, DAN
ROBERTSON, CÉLINE
O'NEIL, STEVEN JIA**
VICE PRESIDENTS
COMMUNICATIONS

Hey there! We are Melissa Buckley and Dan Robertson (B-Society VP Communications), and Céline O'Neil and Steven Jia (A-Society VP Communications). We are responsible for the external marketing/branding of the Society to any external organizations.

A large focus that we have is taking care of any logistical responsibilities for attending conferences, which include delegate selection, travel plans, and reporting on the conference to the faculty and the Dean. We also attend engineering related meetings of external bodies; this includes Professional Engineers Ontario (PEO), the Engineering Student Societies' Council of Ontario (ESSCO), and the Canadian Federation of Engineering Students (CFES).

We also oversee advertising and branding for the Engineering Society. This includes the mailing list, social media, the website, and various other advertising methods.

There are numerous opportunities for everyone to participate in conferences with engineering students from around the country, and to share your experiences. This is a great way to learn about how other schools' Engineering Societies function and bring new information back to our school. If you

would like more information about what happens at conferences, what you stand to gain from them or anything conference related in general, feel free to find Dan in the Orifice during the Fall term, Céline in the Winter, or send an email to vpcomm@engsoc.uwaterloo.ca.

We are looking forward to meeting you all, and we hope you have an amazing time here at Waterloo! Don't be afraid to reach out to us, or to try something new. Best of luck in first year!

EngSoc Events and Outreach

A Message From the VP Internal and the VP Student Life

**SABRINA HUSTON,
MARIKO SHIMODA**
VICE PRESIDENTS STUDENT LIFE

Hello and welcome to Waterloo, the best place... for SO MANY reasons!

We are Sabrina Huston and Mariko Shimoda, your Vice Presidents of Student Life for Fall 2017 and Winter 2018 (respectively). We are here to plan coffeehouses, board game nights, LAN parties, D&D, hackathons, bowling, art nights, laser tagging, improv games, movie nights, semi-formals/dances,,

volunteer/outreach opportunities, and overall, we are here to spice up your term! It is INCREDIBLY important to relax and have fun when you can during school, because it can make you happier and actually improve your academics. Yes, this is scientifically proven; trust us, we know.

Coming to EngSoc events is easy. Stay updated by following EngSoc on Facebook, keeping an eye on the posters on the walls, and checking the events calendar outside the Orifice in CPH. Right now, some keynote events we want you to

know about are:

First Year Mentoring is a way for you to be paired with a wise upper-year who can give you all the secret tips of how to thrive in Waterloo engineering!

Engplay is a play which occurs every term, run by and put on by students just like you! Come audition to have a crazy good time and bond with other future stars, offer up your creative services as a crew member, or come see it and get ready to be dazzled.

Semi-formal occurs midway through the semester and gives you a chance to

show off your fancy side and killer dance moves. (As long as you pretend you're good, everyone will believe it.)

Coffeehouses happen every term, and are a really fun way to showcase your cool and strange talents, and/or appreciate the secret abilities of your classmates! Also, there is usually lots of free food.

NEM (National Engineering Month) is in March, and through fun community events such as building creative structures out of cans and creating a Rube Goldberg machine, we show everyone how great engineering is! Be sure to get involved to inspire more fantastic future engineers like yourself.

Are you interested in Outreach? Community involvement, volunteering, and charities? There are plenty of opportunities to work with the executive and commissioners to make a difference. As engineers, we love being engaged with our community; for this reason, every year the student body votes on a charity that the Engineering Society supports for a full calendar year. We run plenty of charity events that you can volunteer at or just participate in. Be sure to keep an eye out for things such as Charity Grilled Cheese and/or Pancake sales and more! Stay tuned to find out what cause we will be supporting, we would love to have your help!

Another major component of the outreach we look at is connecting with students regarding the exciting and challenging field of engineering. The main initiative each term has us working with younger students in collaboration with Engineering Outreach. One event that we hope to run twice in the Fall term is Education outreach at the MUSEUM. Heading to Kitchener, we aim to run experiments that teach younger students about aspects of engineering.

We have all types of events and definitely have something for you...but if not, email vpstudentlife@engsoc.uwaterloo.ca and tell us what you want to see!



B-Society, from left to right: Andrew McBurney (VP Academic), Melissa Buckley (VP Communications), Sabrina Huston (VP Student Life), Rachel Malevich (President), Dan Robertson (VP Communications), Chelsea VanderMeer (VP Student Life), Katie Arnold (VP Finance)

WEEF Is Good

SARAH MCCURDY
WEEF DIRECTOR A-SOC

HELLO! While you're exploring the campus, you might see yellow WEEF signs around you. These stickers or signs mean that the Waterloo Engineering Endowment Fund (WEEF) has partially funded the project! Furthermore, if you are thinking about joining a student team in the E5 Student Design Bay, know that WEEF contributed \$1 million to the space.

WEEF was started by two Waterloo Engineering Students, John Vellinga (SYDE '91) and Avi Belinsky (EE '90), to "continuously improve the education environment for undergraduate engineering students". Over time WEEF has grown through employer, alumni, and student donations to become the largest student-run endowment fund valued at \$15,676,952. WEEF was made by students, for students in order to improve our educational experience. Therefore WEEF is run by student representatives with around 50 on-stream representatives and a majority WEEF Board of Directors.

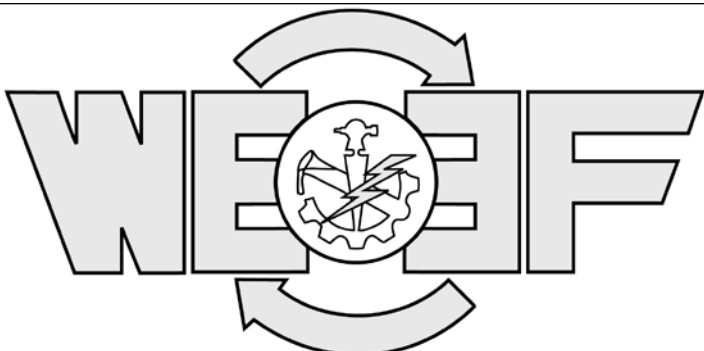
Every term departments and student teams have the opportunity to submit proposals to receive some of WEEF's \$90,000 funding balance per term. WEEF aims to fund 80% for departments and 20% for student groups because department proposals have a larger impact on the engineering ed-

ucational experience. In the past two years, every engineering department has submitted a proposal and received funding. WEEF funds long-term investments that have a direct impact on UWaterloo Engineering undergrads. Every term proposals submitted by faculty, student teams, and clubs are presented to a group of student representatives from every engineering program and year. Student WEEF reps ask questions, propose modifications, and communicate to presenters about the efficacy of their proposals. Once all the presentations are finished and each class represented, the funding council votes on the funding allocation.

The Engineering departments take into consideration what students are funding with the WEEF budget. WEEF communicates on behalf of students through our own funding decisions and through our influence on the faculty's budgets.

If you are interested in supporting your class as a WEEF representative, there are elections held for first year classes in mid-September and upper years hold elections when needed. Furthermore, there are open spots on the WEEF Board of Directors in November. If you are interested in either positions and have questions, please email weef@uwaterloo.ca

If you have any further questions, please email weef@uwaterloo.ca or ask your class WEEF representatives.



Waterloo Engineering Competition

WATERLOO ENGINEERING
COMPETITION

The Waterloo Engineering Competition (aka WEC) is a competition, held each Fall and Spring term. Scheduled over a two day window, four different challenges are available to students. The junior design competition, open to first and second year students, gives teams four hours to work on and complete a previously undisclosed problem. Similarly, the Senior Design Competition gives a larger time frame of six hours for teams of third and fourth year students to complete their design problem.

Programming, the newest competition requires teams to construct industry-quality software that provides a solution to a given problem and demonstrate its functionality and quality to a panel of judges. Finally, in the Consulting Competition, teams are given six hours to produce a practical solution to a previously undisclosed problem that demonstrates

social, environmental, technological, and economical resourcefulness.

Each task will be given with constraints that challenge each group to create a prototype and present to a panel of judges in an effort to win a berth to the Ontario Engineering Competition (OEC), to be hosted by the University of Ottawa, in January 2018. In addition to advancing the OEC, there will be cash prizes and more!

This competition is run in conjunction with the Sanford Fleming Foundation which runs a debate competition as well as an innovate design competition. These winners also move on in their respective competitions to OEC to represent Waterloo at the provincial level.

This is a great chance to test your engineering skills and improvisation. The competition is a great chance to learn more from your peers, get great hands on experience, and participate in a real engineering challenge! All engineering undergraduate students are welcome!



Engineering Student Societies' Council of Ontario

JEFEREY LEE
ESSCO VICE PRESIDENT
COMMUNICATIONS

Hi first-year students! Congratulations on starting your engineering education at the University of Waterloo – one of the 15 universities across Ontario that are a part of The Engineering Student Societies' Council of Ontario (also known as ESSCO). My name

is Jeffrey Lee and this year, I am Vice President Communications of ESSCO, and I am very excited to be working with ESSCO and connecting with all of you!

ESSCO is an association that represents Engineering Societies from 15 universities across Ontario, and acts as the link between engineering students and professional associations, academia, and government. Since its creation in 1987, ESSCO's goal has been

to promote "unity, continuity, and visibility among Ontario engineering students". Each member school of ESSCO holds a seat on the council which allows them a vote. These votes decide impactful changes to all engineering students in Ontario.

In addition to representing students on a provincial level, ESSCO also hosts four conferences annually: Presidents Meeting (PM), Professional Engineers Ontario Student Con-

ference (PEO-SC), First Year Integration Conference (FYIC), and Annual General Meeting (AGM). Each conference is an opportunity for students to meet at one of ESSCO's member schools, and allows students to share best practices, discuss strengths and weaknesses of their schools, and implement positive change. Students who attend the conferences (known as delegations) are representatives of their school and are overseen by an executive member of their school's Engineering Society. One of the conferences, FYIC, is catered especially to first year engineering students, and I highly recommend applying through your engineering society. This year, FYIC is hosted by Lakehead University in the beginning of February.

ESSCO organizes many different events that bring universities across Ontario together. These events include conferences, the Ontario Engineering Competition, National Engineering Month, and Wonderland Math and Physics Day. It is a great way to get involved and represent your university at higher level. As a student that is still fairly new to university, ESSCO has shown me that even though I am not a professional engineer yet, I still have the power to implement change and make a difference when it comes to my engineering experience. There are so many different opportunities that you can take part in, either as a delegate in a conference or a director with ESSCO. It is all up to you now. If you are looking to find out more about ESSCO and how it can help you, you can email your VP Communications, any of the ESSCO executives, visit our website (www.essco.ca), read our blog for monthly updates (www.essco.ca/news/) and check out our Facebook, Instagram, and Twitter. Good luck on your first-year!

KITCHENER WATERLOO

Travel Vaccines
& Advice
by Appointment

Health Canada Certified for Yellow Fever

519.570.4208

www.kwtravelclinic.ca

Physicians Certified in Travel Medicine

Engineering Society Services

ABDULLAH BARAKAT AND RACHEL MALEVICH PRESIDENTS

The Engineering Society is proud to offer an amazing number of services. Here is a brief summary of what we can offer you so you know how to get around engineering and fully utilize everything that is available.

C&D (Coffee and Donut)

EngSoc runs a coffee and donut shop with the lowest prices on campus. Head over to the Carl Pollock Hall (CPH) Foyer for low cost coffee and treats! Each of you should have received a promotional voucher in your Orientation Week bag. Please note that it does not accept Watcard, but it does accept cash and debit!

EngSoc Office (a.k.a The Orifice)

The Engineering Society Office, also located in CPH, is a great place to get cheap printing, report binding, photocopying, and scanning! Trust us when we say that cheap report binding will be a great thing for all of you in the near future. You can also sign out board games, pool and foosball equipment, and pick up your student deals sticker! Please make sure to come by the Orifice to see everything we have to offer and to meet the lovely EngSoc Executive. You can usually find at least one of us working there at all times!

POETS

In our student lounge, POETS, everyone is welcome! It is a great place to hang out between classes, play a game of pool, or even take a nap. It is open every day from 8:30-5:30 and for special events. There is a pool table, foosball table, and movies playing



The C&D now accepts debit and credit! It's the best place to satisfy your coffee needs.

First Year Services

THERESA DECOLA FIRST YEAR COMMISSIONER

Hey! Welcome to the Waterloo Engineering family! My name is Theresa DeCola and I will be your First Year Commissioner with the Engineering Society this fall. My directors and I are very excited to meet all of you, and bring you some great events! We have been working hard on a few things to help you adjust to university and learn more about all the neat things in our faculty.

We are very excited to offer a First Year Mentoring Program that will connect first year students with upper years in their program. Throughout the term there will be multiple social events for you to meet and get to know your mentor and other first-years. Mentors are there to answer any and all questions you may have, and to guide you along during your first year.

The First Year Engineering Leadership Conference (FYELC) is a one-day conference that will be held at the University of Waterloo on September 30th. This conference is for anyone who wants to further develop leadership skills in their academics, extracurriculars, and professional life. Delegates will meet other first-years while attending talks and sessions by notable leaders in the

Waterloo community.

The numerous events run by the Engineering Society would not be possible without wonderful directors! Directors plan and run events such as Coffeeshouses, EngPlay (engineering play), snowboarding trips, and so many more! Our First Year Directorship Mentoring program matches incoming students with our existing fall directors so first year students can learn what it's like to be an Engineering Society director. If you're interested in taking on a leadership role like this, stay tuned!

Find out more about all these events under the First Year tab on the Engineering Society website (engsoc.uwaterloo.ca/events/first-year), where you can also sign up for our mailing list. It's a great way to stay in the loop with the Engineering Society.

Going to university is a pretty big step in anyone's life and I hope to provide with you with the tools and guidance you need to succeed and adjust to your new home. If you have questions or comments about anything at all, send me an email at firstyear@engsoc.uwaterloo.ca, or approach me on campus! And again, welcome to the Waterloo Engineering family, and I wish you the best of luck with your first year!



The Novelties gift shop is located right next to POETS, the undergraduate student lounge.

around the clock. Look out for our special "First Year Fridays" throughout the term!

Novelties and RidgidWare

Novelties is your one stop shop for all Waterloo Engineering swag and merchandise. Located between the C&D and POETS, it is open from 11:30am to 1:30pm, Monday to Friday. We have a variety of items including sweaters, keychains, glassware, and much more! Come out and show off your Engineering pride!

RidgidWare is our hardware and electronics store/service, and is a handy source for materials for both hobbies and projects! We have supplies such as LEDs, breadboards, Arduinos, and more! It is also a place where people can go for information and advice on hardware related matters for any projects they're working on.

Student Deals/Discounts

The Society offers a student deals program with discounts from local restaurants. Come by the Orifice to pick up your free student deals sticker. All you have to do is show your sticker at participating restaurants to get the discount. It really is as good as it sounds!

Exam Bank

Midterms can be a stressful time, but we want to help with the stress by having an online exam bank where you can search hundreds of past exams to help you study. The exam bank will give you a great sense of what your first year exams will look like. It can be found on our website, engsoc.uwaterloo.ca/exambank.

Resume Critiques/Interview Skills

Each term, there are thousands of students at Waterloo looking for co-op jobs. Finding that first job can be scary, but don't worry! EngSoc has lots of great resources to help you succeed.

EngSoc runs numerous resume critiquing sessions where you can get one-on-one time with an upper year student to go through your resume and ensure it is tailored to the type of engineering career you want. We also offer a variety of online resume services including a frequently asked questions

section, example templates, as well as an online resume critique service where you can reach out to an upper year volunteer throughout the term to get your resume critiqued.

We also hold interview skills workshops where you can practice answering some engineering specific questions in order to prepare for your first round of interviews.

Mental Health Services

Mental health is an issue that is growing among engineering students, but EngSoc has made it a priority to help you stay healthy. We run various events throughout the term to help you cope with stress. Some of our popular events include Let's Talk Mental Health, Mental Health Awareness Week, and bringing puppies to our student lounge during exams!

MATES

UW MATES (Mentor Assistance Through Education and Support) is a peer-to-peer counseling program run through UW Counseling Services. The Engineering Society has partnered with MATES to run this program for engineering students. By applying through the UW MATES website, you will be paired with a student in engineering who has been trained extensively to help in areas such as stress, relationships, mental health, transitioning to university life, and adapting to the culture in Canada. If you would like to sign up for an appointment, you can email csmates@uwaterloo.ca.



This is the Tool whom you will come to love and adore

Meet Your Colour Groups!

MEGGIN, AKSH-AYAA, JACK, DAVID
LIGHT RED HUGES

My armor is like tenfold shields, my teeth are swords, my claws spears, the shock of my tail a thunderbolt, my wings a hurricane, and my breath death! (Tolkien, 1937) Of the many beasts of legend, none boasts a record so mystifying and spectacular than that of the dragon. No matter the tale, the dragon always soars above the rest. Who was it that

LIGHT RED - Dragons

overcame the loss of a caudal fin to loyally protect the Vikings from danger? The first ever sighted Night Fury, Toothless. Who was it to amass more golden treasures than actually exists gold on Earth? None other than Lord Smaug. Who was it to protect the great Khaleesi in her conquest across continents, dancing to her words and unleashing a storm of fire at the mention of 'Dracarys'? The unbeaten Viserion, Rhaegal and Drogon. Who was it to guard the fairest princess in all the land atop a charcoal ridden tower,

then successfully mate with a donkey to produce the most sterile offspring you could possibly conceive? Why it was Dragon, of course (not a dragon, just Dragon). We shall soar across the skies, burning anything that stands in our way of victory to ashes. We shall rise fearless as ever, over our diminutive opponents. We shall rise above them all as the most ferocious beast of legend, the magnificent dragon. Welcome first-years, our den awaits you.



BEN, EMMA, CONNOR, TIM
DARK RED HUGES

Dark Red's O-Week theme is Vampires! Sixteen varieties of legendary beasts make up

DARK RED - Vampires

the Engineering colour teams. Among them, vampires stand out as the most similar to engineering students: vampires have no need for sleep and avoid the outdoors. The blood diet definitely violates some campus policies, so

we opt for a pizza-only diet instead. Supported by mascots including fangs and bats, we're looking forward to a great week. We suck!



ALAN, SARAH ANN, KELSEY, SEHRISH
LIGHT ORANGE HUGES

As Orientation Week 2017 commences, you take a second to stop and enjoy your

LIGHT ORANGE - Centaurs

surroundings. Wait. Can you hear that? Listen. From the depths of Waterloo Park come rumbling hoofbeats. As they approach you see the majestic silhouettes of the fierce Light Orange Centaurs! With their arrows, hardhats and Warrior Pride in tow they gallop onward,

rearing for victory. This orientation week, beasts abound, and the Light Orange tribe welcomes you. Join us to defend our noble honour through a wild ride of challenges and camaraderie as you start your journey at the University of Waterloo.



SIMON, THERESA, JOSH, MADELEINE
DARK ORANGE HUGES

Welcome to the Order of Phoenixes. Our elegance is unmatched, our brilliance with-

DARK ORANGE - Phoenixes

out equal, our tendency to catch fire, unique. First heard of around the 5th century BCE, the Phoenix has represented many things over the years, including the resurrection of man, that one time my roommate burnt a pizza to a char and ate it anyway, the passage of

time, and, for Orientation Week, victory over the other legendary beasts. To paraphrase Chumbawamba, "I die and burn to ashes, but I get up again; You're never gonna keep me down". Any required fire based protective equipment will be provided.



LOUIS, ZAHRA, MIGUEL, NOAH, ILIA
LIGHT YELLOW HUGES

Beneath the desert dunes of Egypt, the ancient dead awaken. The Mummy's Curse has been activated, and we'll be leaving all

LIGHT YELLOW - Mummies

the other groups in the dust! We're up against a whole menagerie of legendary creatures, but with our ancient wisdom and engineering smarts we can get through the challenges, win the week, and even resurrect Brendan Fraser's acting career while we're at it! This is a week you just can't miss: you'll meet a ton of new

friends, have a blast at the events, and get a full taste of our university and engineering spirit. Plus, we've got a whole crew of leaders who can't wait to walk like an Egyptian with you. This isn't some pyramid scheme, so don't be in de-Nile: join the gauze today!



AUSTIN, CAILEEN, JAN, MACKINLEY
DARK YELLOW HUGES

"If by my life or death I can protect you, I will. You have my sword... and you have my bow... and my axe" (Lord of the Rings). This is how we will fight for victory in Orientation Week 2017. Not with weapons, but with

DARK YELLOW - Elves

willpower, teamwork, and puns. No matter what background you come from, we believe in the potential in each and every one of you. Whether you are a musician, a side-project enthusiast, or a huge fan of Legolas, this is the place where all talents meet to create the best Orientation Week experience ever! Meet your fellow elves in team-building activities, explore the ancient arts through skill-testing

challenges, and spit some supa hot some dank memes. Are you ready to rule O-Week and your undergrad career? Then join us on this journey towards 'elf-discovery'. Brush up on your Elvish, put on your pointy ears, and get ready to have yours-elves the best Orientation Week imaginable!



LYLE, ELIZABETH, HALEY, PAULA, ALEX
LIGHT GREEN HUGES

Imagine yourself arriving in Waterloo among the many students from far and wide. You've said your farewells and begun a new chapter in your life. You suddenly feel a growing hunger inside you, one that you cannot seem to satisfy. You look around and real-

LIGHT GREEN - Zombies

ize that you are not alone; many others seem to share this peculiar feeling. You all look towards the University of Waterloo, where your hunger seems to be leading you. You stumble forward with a limp you previously did not have with only one thing on your mind: brains... brains... brains... Lucky for you it is Orientation Week, where all the brilliant and creative minds from around the world come together to cheer, compete and

have fun. Together with your zombie brethren, you will cheer, dance, create and think your way through all the challenges Orientation Week will throw at you. The zombie hoard will be depending on you to bring your unique BRAIN! Ahem... I mean skills to lead us all to a victorious week. Join the zombie army and we will surely conquer Orientation Week 2017 with our big creative BRAI... I mean minds..



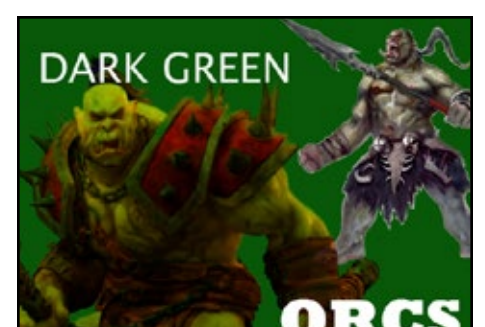
IAN, RACHEL, JERRY, LISA
DARK GREEN HUGES

We get bad rep. Everybody think we brutis and mean. UNFAIR ASSESSMENT. We have feeling too. fight to defend family and freedom. Save earth from oppresion of man.

DARK GREEN - Orcs

Other say orc kill because we savage. Because we no have morals. Because we monsters. ALTERNATIVE FACTS. Orc culture strong and free. Simple life best life. Orc way is way of hapiness. Live off earth. Help community. Have baby. We only war when necessary. But when orc fight enemies tremble. Enemies

bigger. Enemies have magic. But orcs people not monsters. We organized. We smart. We do not forgiv. We do not forget. EXPECT US. We orcs. We protec. But we also attac. And no beasts can hold us bac.



In the Battle of the Beats, Whose Legend Will You Champion?



**KATIE, SAMANTHA,
CHRISTIAN, DAEUN**
LIGHT BLUE HUGES

Welcome Mermen and Mermaids. Today, you have become a part of an ancient species,

LIGHT BLUE - Merpeople

whose past dates back to ancient Greece. By the modern era, the Merpeople have spread worldwide, and our next destination of conquest is Waterloo. We the Merpeople are born from the tears of Poseidon – god of the oceans. It is our duty to please him, and

win this competition by giving it our all. Our voice is our strongest tool. So, do not forget to sing, dance, and chant your way to glory because whether victorious or not, make sure you leave behind your legacy on Orientation 2017.



**GEORGE, CALENA,
PAOLO, RISHI**
DARK BLUE HUGES

70% percent of this planet is covered by ocean. Less than 5% of it is known to humans. What horrors rise from its depths? We do! This September, you will swim in the

DARK BLUE - Sea Monsters

team of Sea Monsters. We are the terrors who emerge from the deep, with tentacles thrashing, eyes alight, teeth multitudinous, to battle and smash our way through orientation week like a sentient typhoon. Building bonds with your new brood, you will learn the flow of your new environment, while navigating the sea of people and slicing through fun tasks.

With the tenacity of Scylla, the strength of Moby Dick, and unwavering resolve of Jörnungandr, we will smash our way to victory! Armed to the pearly whites with projectile flotsam, we'll wreck our opponents, spit sand in their eyes, and sink 'em to the Marianas Trench. Those of the sea will always become legends. We will rock the competition's boats



**ADRIAN, BRYCE, DANIEL,
HARMINDER**
LIGHT PURPLE HUGES

As he entered the town of water-boo, he noticed a distant light purple hue drifting over Ring Road, slowly engulfing the structures within. With his curiosity peaked and engineering senses tingling, he felt the ghostly light purple haze call to him. He dared to get closer and try to break through it, but before his trembling fingers could pierce the fog, a deafening roar of thunder threw him back. His eyes widened as he looked up at the sky to find 5 fantastic beasts ripping through the air, moving through the buildings above and the ground below with ease. Their frustration

LIGHT PURPLE - Ghosts

was evident, yet they all came to a slow stop right above the wide-eyed boy. He opened his mouth slowly to ask, "who..what...what are you?" The beasts seemed to float effortlessly in the sky and carried the same purple shade as the hue before. The largest of them all answered, "My name is King Boo, and these are my fellow ghosts, Clyde, Blinky, Pinky and Inky." Clyde floated toward the boy and spoke, "As the appointed light purple ghosts we make sure those who enter the water-boo campus have what it takes to be an Iron Warrior!" "And you, my child, have been chosen to be a light purple ghost tribute!" said Pinky while flying right through the boy, into the ground and back where she had begun. "SO PREPARE! An entire week to earn your engi-

neering pride, the hardhat, to embrace what it means to be an iron warrior, and to go through mentally and physically challenging tasks which will prepare you for your upcoming years at water-boo!" roared Blinky. He felt a change of emotions, his fear was now gone and in its place stood ambition and determination to prove himself worthy. He spoke again, but this time his voice did not tremble. "I ACCEPT YOUR CHALLENGE!" A smile crept across Inky's face. "We will see you again soon my child." All five beasts backed away and begun their magical dance back into the air and within moments they had disappeared, leaving behind the same sparkling light purple haze that had started it all.



PETER, QUIN, MEGAN, STEFAN
DARK PURPLE HUGES

Before we begin, I would like to say a few words. And here they are: Nitwit! Blub-

DARK PURPLE - Witches & Wizards

ber! Oddment! Tweak! Welcome to Dark Purple! We are the witches and wizards. Hailing from all realms; from Hogwarts to the moors of Denmark, Middle Earth to the College of Winterhold and even The Coast

to Waverly Place. This week, the witches and wizards are going to battle! It will take all of your cunning, skill, creativity and teamwork; together we will triumph in challenges of collaboration and ingenuity.



PETER, SARAH, KEVIN, RILEY
LIGHT BROWN HUGES

Fee Fi Fo Fum, welcome to the Giants team! We are your Huges and we're super glad to welcome you into the most giant team on campus. Descended from Gaia and

LIGHT BROWN - Giants

Uranus, giants are a formidable opponent. After all, we battled to the death with the Olympians. Do any of these other teams really think they have a chance?!? Get ready to spend the week stomping around campus and swinging our clubs at anyone who dares to get in our way. With your help, we'll crush

every challenge that's put in front of us. So grab your clubs (and your multi-tools and water bottles) and get ready to take on all of those other beasts. Get ready for an amazing week, and we look forwards to meeting you all and grinding to dust the bones of anyone who dares to oppose us.



**JULIANNA, WOOK,
MARIKO, YEMIN**
DARK BROWN HUGES

The beasts are here to wage war and there is none more terrifying and deadly than the werewolf. From Fenrir Greyback to #Team-

DARK BROWN - Werewolves

Jacob (yes he counts too), werewolves devour their competitors. For your first week in Waterloo Engineering, you have been tasked with winning o-week through a variety of challenges that will test all your skills and abilities. Don't be worried if your howl isn't blood curdling just yet! We have

an awesome team of leaders to help you get into the swing of things as a werewolf/engineer. So get hyped, get vicious, and get ready to join us as we take to the night (maybe leave the silver at home, though). The full moon is up and we came to win ARH-WOOOOOOOOOOOOO!!!!!!



**YASH, SCOTT, EMILY,
CAMERON, MEGHAN**
LIGHT PINK HUGES

We are Light Pink and we are the most dangerous team this year! Light pink is the

LIGHT PINK - Unicorns

prettiest, sparkliest, and scariest Orientation team out there and we are ready to fly into battle with our friends at our backs! We are the Light Pink Unicorns, Link for short, and we are going to stay hydrated and well rested this week so we can spend all day

in the sun being safe, making friends, and impressing our leaders! Get ready to show your horn as a Light Pink pony, because we will be battling some fierce teams in the battle of beasts. Sharpen your hooves, work on your neigh, and fly into battle with us!



**CONNER, RISHEGA, EMMA,
HANNAH, KRISTOPHER**
DARK PINK HUGES

Upon entering Orientation Week 2017, you come across a garden of stone statues that look so real that you are convinced that they might have once been

DARK PINK - Gorgons

alive... You reach out to touch one, and that's when you hear the quiet hiss of approaching snakes...There is no greater beast than the gorgons, with hair made of venomous serpents and a stare so piercing that it can turn any engineer to stone. Myth and lore tell the story of the three gorgon sisters, Medusa, Stheno and Eu-

ryale, who were once used both as guardians of evil from the home and as keepers of the underworld. But come O-week 2017, we will slither and cheer across the Waterloo campus, winning events and having fun. Hello, dark pink first years, and welcome to the mossssst ssssstupefying and mossssst ssssstunning team yet.

Frosh Week Event Schedule

Engineering Students' Schedule for On-Campus Residence. Software differences noted below.

4
MONDAY

5
TUESDAY

6
WEDNESDAY

- 8:30 a.m.
- 9:00 a.m.
- 9:30 a.m.
- 10:00 a.m.
- 10:30 a.m.
- 11:00 a.m.
- 11:30 a.m.
- 12:00 p.m.
- 12:30 p.m.
- 1:00 p.m.
- 1:30 p.m.
- 2:00 p.m.
- 2:30 p.m.
- 3:00 p.m.
- 3:30 p.m.
- 4:00 p.m.
- 4:30 p.m.
- 5:00 p.m.
- 5:30 p.m.
- 6:00 p.m.
- 6:30 p.m.
- 7:00 p.m.
- 7:30 p.m.
- 8:00 p.m.
- 8:30 p.m.
- 9:00 p.m.
- 9:30 p.m.
- 10:00 p.m.
- 10:30 p.m.
- 11:00 p.m.
- 11:30 p.m.

MOVE-IN / CHECK-IN
Residences and Student Life Centre
* Also on Sunday, September 4.



WELCOME
* Also on Sunday, September 3.



HQ TIME
Colour Group Headquarters

ENGINEERING TRADITIONS
Various Locations



DEPARTMENT LUNCHES
Various Locations

EARN YOUR HARDHAT
Various Locations



AERIAL PHOTO
B.C. Matthews Hall Green



SINGLE & SEXY / BLACK VS GOLD
Physical Activities Complex/Vari-ous Locations



AERIAL PHOTO
Village 1 Green

JUNKYARD WARS
Village 1 Green



FOR YOUR INFORMATION (FYI)
SLC Great Hall



SINGLE & SEXY / BLACK VS GOLD
Physical Activities Complex/Vari-ous Locations



Engineering

Faculty Welcome

Meet the Dean of Engineering, the first year academic advisors, and some members of the Faculty of Engineering at this event!

Traditions

Learn about all the traditions that are upheld by the Waterloo Engineering Society and by Engineering Orientation.

Department Hangouts

A sit-down event where students are split up by department and talk to upper year leaders in the same department.

Earn Your Hard Hat

Earning your Hard Hat is one of the oldest traditions in Waterloo Engineering Orientation. You work with your fellow first years to complete a set of tasks with the end goal of earning your prestigious Waterloo Engineering Hard Hat. You'll be needing that hard hat for the rest of the week!

Aerial Photo

Every year, all first year students assemble in the formation of a shape relating to the theme of Orientation Week. This is one of the only times until graduation that the entire class of 2020 will be in the same place for a photo. The finished product will hang in POETS for the duration of your undergraduate career and beyond!

Single and Sexy

A theater performance put on by upper year students which covers many issues that students might run into at University in a very lighthearted and informative manner.

Black vs. Gold

A series of mini-games hosted by all faculties.

Junkyard Wars

Our flagship event, Junkyard Wars, is exactly what its name implies. Colour groups are challenged to solve problems and complete challenges using only recycled materials and scrap parts. This event is the true test of ingenuity, creativity and plain old smarts.

Warrior Wander

Several specialty events which allow you to learn about the Boardwalk Shopping Center, uWaterloo's Online Services, as well as helping with a mural in Waterloo Park.

Student Teams Showcase

All student design teams and engineering student groups on campus are set up in an area where they can showcase what they do and what they have to offer to engineering students.

Black and Gold Day

Show your warrior pride at a sports game by rocking Waterloo's official colours.

All photos credited to Frosh Media & EngSoc.

Engineering Academic Cross-Campus

7
THURSDAY

CLASSES
Various Locations



WATERLOO FEST
Uptown Waterloo Square

STUDENT TEAMS SHOWCASE
E5 Sedra Design Centre



Monte Carlo

A casino themed event where everyone shows up in their fanciest outfits and hits the tables (no gambling involved).

EngSoc Day


Bouncy castles, dunk tanks, cotton candy, charity headshave and everything EngSoc! Come out to meet the Engineering Society Executives and learn about what EngSoc has to offer you!

Scavenger Hunt

Complete your scavenger hunt list while enjoying engineering mini-games. There are countless activities, and also a never-ending acquisition list with items for you to collect. This is the final flagship Engineering event and is sure to not disappoint!


8
FRIDAY

CLASSES
Various Locations



FEDS SHOWCASE
Student Life Centre


SCAVENGER HUNT & SMASH BAND
Engineering Quad



9
SATURDAY



BLACK AND GOLD DAY
Warrior Field / Columbia Icefield




CLOSING CEREMONIES
Hagey Hall Theatre/CPH Courtyard



MONTE CARLO
Student Life Centre/
Physical Activities Complex
*Continues till 2am

10
SUNDAY



ENGSOCC DAY
POETS Patio / Carl Pollock Hall




BEGINNING OF TERM (BOT)
POETS




Welcome to First Year Engineering

Greeting from the First Year Office

DAVID NAIRN

DIRECTOR, FIRST YEAR ENGINEERING

Welcome First Year Engineering Students
Greetings from the First Year Office
David Nairn, Director, First Year Engineering

Welcome all first year engineering students! Starting an engineering degree provides many opportunities for personal and academic growth, including: making new friends, visiting new places, developing critical analysis skills, gaining valuable work experience, and developing your own career. Your undergraduate degree will take nearly five years and it is important that you start this process with care and planning. The First Year Engineering Office is here to help you plan and manage the transition from high school and home to a new environment in the university. So let me share with you some tips on what to expect and on how to succeed in engineering at Waterloo.

What to Expect in Your 1A Term

During the 1A term, you will have approximately 30 hours per week of scheduled lectures, tutorials, and laboratory periods. To keep up, you will have to put in an additional 20 to 30 hours every week to study, review, complete assignments and write reports. Now we are at 50 to 60 hours per week. To manage this workload, you may have to change your study habits and how you manage your life. Let me give you some tips on things that work, and some things that do not work:

- Attend classes. Follow along with what the instructor is teaching in class. Ask questions. Do not be distracted by Facebook, Twitter, movies, or games on your computer or

phone.

- Review course material and complete assignments on a regular weekly basis. Do not try to cram the day before exams.

- Understand the underlying concepts that you are studying in class, instead of memorizing formulae. Solve problems to evaluate your understanding of concepts.

Balance your Life

As you enter university, your thoughts may be at either end of two extremes: either I'm here to study all the time or I'm here to party all the time. Neither of these is ideal. As usual, the best choice lies somewhere in between. If we view ourselves as being composed of three major parts: mind, body and soul. To be successful you should to nurture all three. For your mind you need to spend time studying and developing analysis skills; for your body you need to eat, sleep, and exercise regularly; and for your soul you need to relax with friends or take part in extracurricular activities. Not only do you have to nurture all three parts, you need to balance the amount of time spent on each activity, without ignoring the other aspects of your life.

You will quickly find time is an important resource that is in short supply. There will never be sufficient time to complete all the tasks to the degree of satisfaction that you would like. Thus, it is essential to set priorities and spend an appropriate amount of time on each task. Making and following a schedule will be invaluable. Depending on your progress, you will frequently need to make adjustments to your schedule. In summary, keep your life in balance, study hard, but plan to nurture your body and soul as well.

Ask for Help

Waterloo engineering programs are demanding and have heavy workloads. The workload may result in limited time to understand concepts, finish assignments, or prepare for exams. The lack of time may cause stress in your life. You may find that you need help with your studies or personal life. Often asking for help maybe the better choice in many situations, as opposed to doing everything yourself or doing nothing.

There are many sources of academic help available at the university. First will be your classmates. It is beneficial to form study groups with other students taking the same courses. Help is also available from your course instructors and teaching assistants during lectures, tutorials, office hours and by appointment. Additional help is available through special staff and tutors hired by the First Year Engineering Office to help you with your courses. The First Year Engineering advisors provide academic counseling, both for situations where you might be struggling and when you might want to explore new options. We are all here to help.

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

Information and access to all of these kinds of help can be obtained by coming to the First Year Office in CPH 1320, or by calling exten-

sion 84761 during normal working hours.

Be Professional

Engineering, like many programs—such as, medicine, law, and accounting—is a professional program. The reason is that the work done by these professionals can, and does, affect the lives of other people. As a result, professionals are expected to adhere to high standards in their dealings with other people and amongst themselves. To help you develop as a professional, we expect you to behave in a professional way with everyone, including your fellow students, teaching assistants, instructors, and university staff. Any unprofessional behaviour during your university career can have serious consequences and, depending upon the seriousness of the misdeed, these can range from a loss of marks in a course all the way to expulsion from the university.

Being a professional means being ethical, courteous, and considerate in all your dealings, and communicating your ideas and thoughts clearly. In a classroom being professional means not disturbing your fellow students or the instructor. Being professional to your fellow students means treating everybody equally and without prejudice, regardless of their race, colour, creed, sex or religion. Being a professional means not to lie, cheat, or copy on assignments and exams. Being professional means giving credit where it is due, without misrepresenting somebody else's work as your own. If you are ever in doubt about if an action is professional or not, ask someone in a position of authority to help you decide.

I wish you all both academic and personal success here at the University of Waterloo.

Sedra Student Design Center

Home of Some of the Best Innovation at the University of Waterloo

PETER TEERTSTRA

DIRECTOR, SEDRA STUDENT
DESIGN CENTRE

The Sedra Student Design Center (SDC), located on the first and second floor of Engineering 5, is home to twenty-eight of the Faculty of Engineering's student competition teams. The largest facility of its kind in North America, the SDC provides work bays for teams as well as special purpose spaces for sanding, painting, engine testing, electronics assembly, and more.

Here are some typical questions that students have about student teams:

How do I join a student team?

Simple... email or walk into the team work bay and say "I want to join your



A view from the lower garage of the SDC, showing some of the teams working on their projects

team." Recruiting new members is one of their biggest challenges for a team—so

they will be really happy to meet you!

Why should I join a team?

Being a member of a student team looks great on your resume; companies are always looking for students with practical, hands-on experience. Also, being on a team gives you lots of experiences you won't get in a class room. And it's fun!

Will I be able to handle the extra work load?

Absolutely! You can be an active member of a student team by participating as little as 1-2 hours per week.

The SDC is holding a Recruiting Open House on Thursday, September 7 from 4:00 to 6:00 PM. Be sure to stop by to visit with the teams and get more information.

Some Design Teams in the SDC



AARON LAM PROJECT MANAGER

The Midnight Sun Solar Car team is a student team which designs, manufactures, and races solar-electric vehicles. Midnight Sun's membership spans the undergraduate level

Midnight Sun

across all of UW's six faculties. Our diverse team offers challenging work in the mechanical, electrical, and business disciplines, with a project cycle that spans across multiple years. Midnight Sun is open to all new members who are interested in contributing to the project. The team will be entering the manufacturing phase in

the fall, which is a great opportunity for students to gain hands on experience with building a full sized electric vehicle. We will be competing at the American Solar Challenge in the summer of 2018. We welcome all students who share a passion for innovation. You can find more about us at our website: www.uwmidsun.com.

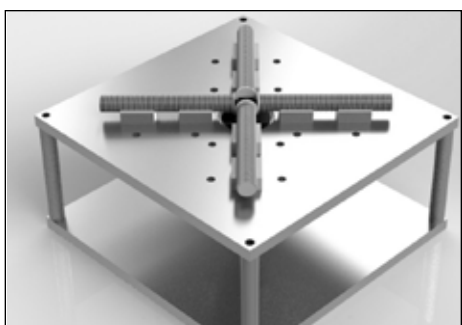
University of Waterloo NanoRobotics Group

UWNRG

Hello and welcome to UW! The University of Waterloo NanoRobotics Group (UWNRG) is an undergraduate research group with a passion for researching and developing robotics on the microscale. Most recently we

placed 2nd in the Mobility Challenge and 1st in the Micro-Assembly challenge at the 2016 International Conference on Robotics and Automation in Stockholm, Sweden. Some of our current robots are based on concepts such as quantum locking and superconduction, micro-fluidics, and magnetic actuation. We are looking for bright and dedicated

members who will be given the opportunity to build their skill set, research cutting-edge technology, and make some new friends. You can find out more about us at <http://uwnrng.org/> and follow our Facebook at <https://www.facebook.com/uwnrg/>. Keep an eye out for when our recruitment starts!



Formula Motorsports Team

FORMULA MOTORSPORTS

We're the combustion team. We design,

build, and race a Formula-style race car every year. We participate in competitions across North America and we're currently the fastest Canadian team on the track! The team is

looking for passionate individuals from every engineering department to keep us at the top! See what we're up to on Facebook: <https://www.facebook.com/UWFormula/>



Waterloo Formula Electric

FORMULA ELECTRIC TEAM

Electric race cars! On the Waterloo Formula Electric team, we design, simulate, manufacture, test, and race high performance electric race cars using world-class tool sets all while managing timelines, budgets, fundraising, and sponsors.

As a group of more than 60 dedicated students across both streams, we compete in the annual Formula SAE Electric competition against universities from around the world. Each season, the team develops a new race car from the ground up. To accomplish this, we often work directly with many industry sponsors which provides excellent opportunities to network with employers, while gaining exper-

ience comparable to the operation of a small start-up. We come from many faculties within engineering, computer science, and business and are always looking for new talented members to add to the team.

Attend our first recruitment meeting on September 12th. To apply or learn more about Waterloo Formula Electric, please visit our web site at waterlooformulaelectric.com



Warrior Home Design Team

GRANT MITCHELL PRESIDENT

Warrior Home is a new design team at the University of Waterloo focusing in the Building Science and Building Performance field. The team is preparing a comprehensive design of an affordable and energy efficient home, working with Habitat For Humanity Waterloo Region (HabitatWR), for a low-income family in the local community. The team will compete in the annual Race-to-Zero

Design Competition hosted by the U.S. Department of Energy. The team will be building a foundation of knowledge used to improve the homes built by HabitatWR.

If the design is successful the Warrior Home will be built in Kitchener at HabitatWR's new 2021 development site. The team hopes to effectively improve the design of all homes in the new development, with a goal to raise the funds necessary to construct one home which will be the official "Warrior Home." The design team will work with

UW's Habitat for Humanity Campus Chapter to educate, advocate, volunteer and fundraise for Habitat for Humanity. Students working on the design team are receiving an unparalleled learning opportunity that includes hands-on construction experience and real world engineering knowledge. The team is cross-disciplinary with members studying in various fields. Everyone is welcome to join! Send an email to warriorhome@uofwhabitat.ca if you're interested in joining!



University of Waterloo Baja SAE

UW BAJA

The University of Waterloo Baja SAE team is an undergraduate student design team that builds an off-road buggy every year to race in US SAE competitions. This year, we are

planning on redesigning and manufacturing a completely new vehicle. We're looking to drastically improve our performance at the competition in spring/summer 2018. Currently, UW Baja is a small team which means that there are more things to do than people to do them. If you want to develop

some technical skills relevant to your co-op job search then be sure get involved with the Baja team. Find us at the student teams' showcase on Thursday September 7th from 4-6pm in Engineering 5. No prior experience required. Visit our website at <http://www.eng.uwaterloo.ca/~baja/>



Women In Engineering

LYNDIA STACEY WIE OUTREACH SQUAD

Women in Engineering (WiE) is a wide network of students, alumni, graduates, industry representatives, faculty, and staff who come together to run inspirational programs

and share impactful resources. WiE supports both current and future female engineers by endorsing and building an inclusive environment for women to engage in scientific pursuits. Through community-building, WiE encourages the next generation of female engineers to reach their greatest expectations!

From a well-established alumni to a current grad student, a kindergartner to a staff member ... we strive to build a community where people flourish together. Events and programs include: WiE Wednesdays, Go ENG Girl, Code Squad, WiE mentorship, What's Next Conference, Girls Clubs, and much more!



Engineers Without Borders

ALEX VASILE ENGINEERS WITHOUT BORDERS

Engineers Without Borders (EWB) Canada is a one of the fastest growing, critical thinking international development organizations in the world. Here at Engineers Without Borders, we're all about creating sustainable change to the systems that cause

and perpetuate poverty. A lot of people think that means sending people overseas to directly perform engineering work, such as digging wells or building bridges. Well, believe us when we say that doesn't work on its own, at least not in terms of sustainability. Instead, we focus on working with local communities and ventures in the parts of the world. We provide them with support and guidance, helping

them solve problems while they remain fully independent. We also do a lot of work here in Waterloo. We, with the help of other on campus groups, have been pushing to get more Fairtrade certified goods on campus. Of course, it's not all hard work and no play, there's our Gala night, and much more. For more information, check out our website and Facebook page.



University of Waterloo Robotics Team

UWRT

The University of Waterloo Robotics team (UWRT) is one of Waterloo's oldest student design teams. The team focuses on teaching and involving various students in complex robotics projects, representing the university at international competitions! The biggest

project the team focuses on is Waterloo's Mars Rover, where it competes annually in the international University Rover Challenge in Utah, recently placing 2nd in Canada, 15th globally in 2017. UWRT also hosts the International Autonomous Robot Racing Challenge every year, where teams from all over Canada, the US, and Asia come to show off and compete with their autonomous robots! These are two

of the largest projects UWRT involves its students in, but there are many more opportunities for the members to solve various robotics challenges. Students from various engineering, science, and math disciplines contribute to the development of the team, so join UWRT for a wonderful learning opportunity! Feel free to stop by our home: E5 1003.

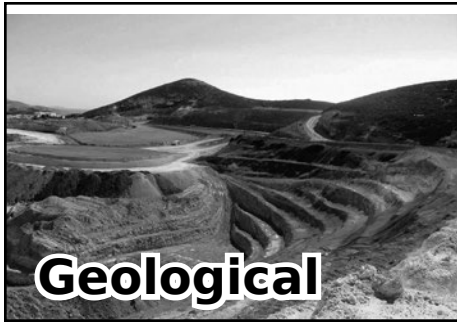


Other Design Teams in the SDC

Aquaponics Team
Autonomous Sailboat Team
Baja Team
Bridges for Prosperity
Concrete Racing Team (Toboggan & Canoe)
Designed Nanoscale Assembly
Enactus Waterloo
Engineers for Hope

International Genetically Engineered Machine
University of Waterloo Clean Snowmobile Team
UW Robotics Team
Waterloo Aerial Robotics Group
Waterloo Hybrid
Waterloo Submarine Racing Team
Waterloo
Waterloo Rocketry Team

Engineering Programs at Waterloo



GABRIELLE KLEMT GEOLOGICAL 2020

Hello future Geological Engineering graduates! You may be wondering as you read this, as I did two years ago, what exactly you signed up for when you picked Geo.

I'm here to try to tell you I've learned over my years in this program. Geo is precisely what you make it, whether you want to work in an office or in the wilderness you have the

opportunity to create your own path. We're lucky to have the option of going in so many different directions from oil and gas to mining or mechanics to geophysics or groundwater and more. If you don't know what you want right away the options seem endless, but that's just the beauty of it! You have five whole years to take a peek at every possible path, talk to people in the various industries you're curious about and figure out what GeoEng means for you.

If that sounds too vague and you want to start your geo journey now, join the Civil, Enviro, Geo Engineering Society (CEGES) and sign up now to volunteer at PDAC 2018. Don't forget to talk to your upper year students, we're all really friendly and would love to answer any of your questions or critique your resume. It wasn't until I started connecting with people across the entire geo spectrum that it started to make sense for me. So get involved and have a fantastic degree!



LEXA MICHAELIDES 3B MANAGEMENT

Hello class of 2022, and welcome to Management Engineering. We're so glad that you have decided to join us in this unique program, the first of its kind in Canada. Management engineering is all about optimization and you will need strong knowledge of mathematical modelling, information systems, and even behavioral sciences to develop those optimal solutions.

There are three main branches of Management Engineering that you will study and while you'll get a taste of all of them from

our core courses, there are lots of electives you can take in your later years for a deeper understanding of each. The first of the three is Operations Research which includes quantitative modelling and decision-making in areas such as manufacturing, distribution, logistics, and supply chain management. The second is Information Technology which works with the design and management of information systems that support large organizations, communication, and decision-making, this includes the design and implementation of databases and the algorithms that go behind them! Finally, Management of Technology focuses on the introduction of in-

novation and technological change and how that affects people both socially and organizationally.

Our curriculum is so diverse that you will find Management Engineers working in all positions in all industries, from business analytics to manufacturing, software development to process improvement. Because our program only has one stream per year, you'll get really close with your classmates over the course of your degree and the upper years are always happy to help you out. We can't wait to see you at our MEET event in your first and second terms and we're proud to welcome you to the Management family!



LEILA MEEMA-COLEMAN MECHANICAL 2016

Congratulations 2022 Mechanicals on starting the five most exciting years of your life! So what can you expect in your first year? Well you will learn a little bit of everything. Mechanical is very general in first year, learning lots of physics, calculus, and materials, then specializing in upper

years. First-year Mechanical Engineering will provide you with opportunities to learn about design principles, AutoCAD, and SolidWorks. You will meet your WEEF TAs who are fantastic upper years that are there to get to know you and help you succeed in your ME 100/101 course (best course ever by the way!). The other exciting part of your first year experience is coop! Mechanical is so diverse we have the opportunity to work in

almost any engineering industry so whether its automotive, materials or building systems, you will have the chance to try it out first hand. Lastly, even though school and grades are important, first-year is about trying new things so get out there and join some clubs, student teams, WEEF, the Engineering Society or one of the other millions of opportunities Waterloo has! If you have any questions or need advice I am always around and happy to chat :)



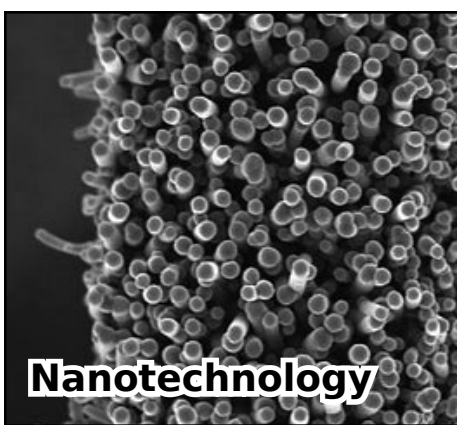
AWN DUQOUM MECHATRONICS 2019

"Wait what's mechatronics?" Is maybe the most common question you will hear from now on, when you do eventually hear that question go ahead and confidently and definitively answer "Robots!". Congratulations and welcome to one of Waterloo's top programs, also known as Tron. You are about to embark

on a journey that will combine mechanical design, electronics, controls, and programming. Throughout this degree you will be challenged and it will leave you an experienced, well-versed engineer with a portfolio of high end co-op jobs and an invaluable set of skills and experience. First year's going to fly by with a lot of exciting hands-on projects that'll help solidify your interests. You'll program and assemble a robot, build a truss bridge, tear apart

an engine, and draft by and and software.

I cannot emphasize enough the importance of self care and a solid support network. Don't ever underestimate how much you've done to get here, and how important you are. Waterloo's mechatronics alumni are notorious for making waves internationally. I can't wait to see how far you are going to go, Class of 2022. Keep your heads high, you're a Tron now and no one will ever take that away from you!



HASAN AHMED NANOTECHNOLOGY 2021

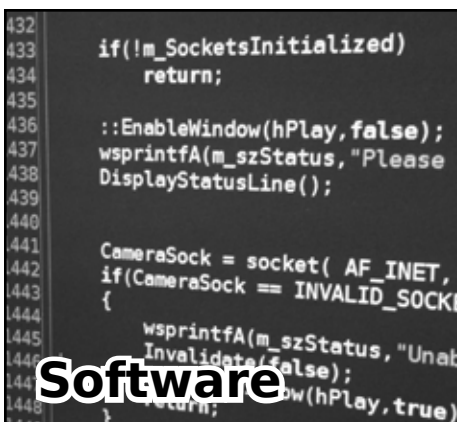
Nanotechnology Engineering: sounds like a mouthful, right? Well, it's a lot of cool stuff at a very small scale. Nanotechnology encompasses chemistry, electrical engineering, medicine, biology, and a whole lot of other disciplines to bring the technology of the future to the forefront of Waterloo research. With resources such as the Waterloo Institute of Nanotechnology and Institute of Quantum Computing, this program is jam-packed

with ideas that can really get you interested in nanotechnology as a first year. You'll learn things such as linear algebra, organic chemistry, and quantum mechanics in your lower years, and as an upper year you can specialize in topics like nanobiosystems, nano-electronics, nanomaterials, and nano-instruments. Nano students' unique collection of skills and attributes make them an excellent fit for work in many sectors. On co-op nano students work in a variety of industries and roles, often making notable contributions to their workplace.

In addition, we also have the Nanotechnol-

ogy Engineering Student Society (NESS), a student-run organization that aims to serve and represent the Nanotechnology Engineering student body. It will organize and run events such as discussions with startup founders, resume workshops, and "Meet the Profs" events! NESS also aims to address nano program-wide concerns more effectively and it will reach out and foster an alumni network for career opportunities and resources.

To find out more about the society and how you can get involved, e-mail ness@uwaterloo.ca.



JOSHUA KALPIN SOFTWARE 2016

Welcome to the land of Software Engineering, 2021 Softies. You'll learn quickly that being called a Sofie is actually an awesome thing, because we aren't soft at all. Software Engineering is a unique program in that you are fully in both the Math and Engineering faculties. This means you get to experience the best of both faculties!

In Software Engineering you'll learn everything about how computers and the software

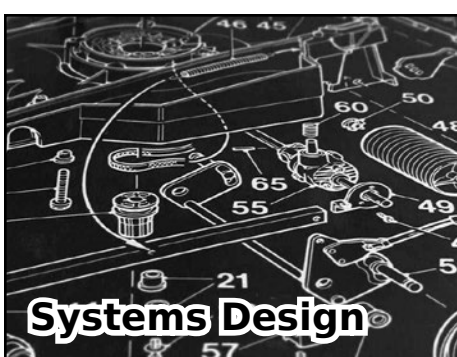
that runs on them works. This ranges from the design and implementation of complex software systems to the physics and circuits that explain how computers function.

Your first year will consist of a strong base of engineering and math fundamentals, and you may notice that you share a number of courses with other engineers and math students in other programs. As you progress through the program this will quickly change and you'll get to experience a slew of unique and interesting courses.

Software Engineering is a stream 8 pro-

gram. This means you have the first eight months of your time at Waterloo to adjust to university life and the program itself before you embark on your first of many co-op terms. Don't worry about getting a job, JobMine, the school's job application service has a ton of jobs to apply to.

Lastly, don't be a stranger! Software Engineering resources are all on the second floor of the Davis Centre (DC), including the labs, lounge and administrative offices. Best of luck to you all. We're super excited you joining us and hope you have an amazing time here!



ADELE CHUI SYSTEMS DESIGN 2018

"What is Systems Design Engineering (SYDE)" is a question that everyone from employers to even your classmates will ask throughout the five years you spend shaping your degree. SYDE is the most interdisciplinary engineering program, which means courses from other engineering departments and unique design courses will give you the

skills and flexibility to really pick and choose what Systems means to you.

For us, SYDE is family. Whether that means ice cream socials or just spending the majority of your degree on the sixth floor of E5, you're going to become really close with some of the most well-rounded students from Canada and the world. Be there for each other - you're all going to change the world, together.

Of course, for co-op in SYDE, we have people doing everything from software de-

velopment to managing multi-million dollar projects to working in small start-up labs - the opportunities are endless and span countries all over the world. Take risks, pick interesting challenges, take the chance to ask difficult questions and dig for answers.

It can be hard, but these will also be some of the best years of your life - enjoy them! We at Systems strongly believe that if you work hard, you can 100% play hard - welcome to the family.

Engineering Programs at Waterloo

RAIN MAKI AND JASON MCMILLAN ARCHITECTURE 2017

As you may have discovered already, we don't call Waterloo home, but rather a historic building at the heart of the old Galt neighbourhood in the City of Cambridge. The refurbished Riverside Silk Mill sits on the banks of the Grand River and will soon become your home sweet home.

In your first year you'll be tossed into a whirlwind of learning, challenging you

JAN LAU BIOMED 2020

Congratulations Class of 2022, and welcome to Biomedical Engineering! Being the fourth generation of BME students at UWaterloo means you are literally making history (of course, in a good way :)! Immediately in your first year, you will work on a design project integrating technology, science, and

TIFFANY CHANG CHEMICAL 2020

Congratulations and welcome to Waterloo, Class of 2022! Enter the world marrying math and science to solve energy balances and process control problems. Chances are that this is your first time writing a résumé and spending countless hours writing lab reports!

First-year is fairly general with a Concepts

ZAHRA KHOSA 2A CIVIL

Hey! Welcome to Civil Engineering at the University of Waterloo (UW). Most of you are probably very anxious about academics, making friends, and maybe moving to a different city (or even country). Rest assured that everyone else has been in the same position as you not too long ago. The feelings of fear, worry, and apprehension will fade, making way for new feelings of pleasure, curiosity, and delight. It sounds cheesy, but believe me when I say you'll have fun – as long as you allow yourself to.

Civil is not limited to structures or construc-

THOMAS DEDINSKY COMPUTER 2020

Congratulations, class of 2022! You made it to the University of Waterloo! You're among some of the brightest individuals the world has to offer, and you are no exception. Starting university you may want to compare yourself to each of your colleagues and feel insignificant. Don't forget that you deserve to be here.

You're probably wondering what's in store over these next few years. You may have an idea of the problems Computer Engineers work on, such as digital hardware, firmware,

AUSTIN COUSINEAU ELECTRICAL 2015

Welcome to the University of Waterloo, and congratulations on choosing Electrical Engineering! You have an exciting path ahead of you. This year will be full of new experiences. You will need to enforce good study habits, and put the effort in to succeed. You will be taking a wide variety of courses ranging from circuits,

HANNAH MURPHY ENVIRONMENTAL 2020

Welcome to Environmental Engineering and the University of Waterloo; we are super excited to have you!

Your first two years here will start off pretty broad but give you the base that you need for the more technical upper-year courses. However, some courses will give you a bit more of

to develop knowledge in architectural design, building science, cultural history and visual communication. Expect to become immersed in the world of architecture, indulge in all things design at the Musagetes architecture library, explore living metropolis of New York City, and maybe even get an exacto knife cut or two along the way.

While academics are a huge part of first-year architecture, it is also time to explore your own interests with your new classmates. Our campus offers a wide variety of extracurriculars to choose from,

design processes to tackle current healthcare challenges. Throughout your undergraduate career, you will learn to model complex biological systems, and develop tools that can benefit the lives of people all around the globe. Whether you are interested in medical imaging, biological materials, or prosthetic designs, you will get to explore the many fields that biomedical engineering has to offer. Taking part in various clubs and design

course that covers program-specific knowledge, such as mass balances. Attend evening help sessions that awesome WEEF TAs run, collaborate with your classmates to study, and feel free to approach your instructors.

While chemical engineering is one of the older engineering disciplines, remember this program is what you make of it. Trust me, the most that you get out of this program is training yourself to think like an engineer—

tion; there are many options you'll soon discover, such as hydraulics, materials, or even transportation. You'll realize you may be more interested in one aspect of the program than another, and you'll shape your degree to reflect that.

I'll leave you with some key advice that can help you transition into university, and specifically Civil Engineering:

- Listen to Bob – you probably don't know who this is yet, but you'll find out soon enough, and he will help you throughout your first-year.

- Get involved – a lot of you participated in extracurriculars while in high school, and you shouldn't give that up... Keep doing what makes you happy.

and even some circuits, and that it's a lot of work to learn how to tackle these problems. You'll be putting in a lot of your time working both in the classroom and outside of it. This term you'll build foundations for second term when you start diving into Linear and Digital Circuits (as well as Discrete Mathematics).

Outside of the classroom is where many first years struggle, as you're going to have to dedicate a lot of your time to academics. Put in a good amount of effort into your courses and you'll be thanking yourself later. But don't be afraid to get involved in intramurals and clubs, as they can be some of the most fun you'll

programming, math, physics and more. Do your best to study them well, as what you learn will be needed in courses and the workplace later on. First year will be full of exciting firsts for most of you, such as interviews, internships and independent life. Make sure you put a lot of effort into your resume, and make sure to take advantage of the resume critiques run by our lovely Engineering Society. You are sure to encounter some tough times as you adjust to

a taste of Environmental Engineering; you'll get to go out in the field to survey, you'll do case studies and work on design projects. That combined with co-op will help you decide what direction you want to take your degree. There are so many different ways you can mould Environmental Engineering into a degree that you want, whether it's with water, air, energy, structures or sustainability, or all!

The next 5 years are going to be a lot of

including Waterloo Architecture Students Association (WASA), BRIDGE, F_RMLAB Build, coffee houses, yoga mornings, hockey evenings and much more. We join our Engineering friends for Archneering events and Of Term Parties. After all, we're only a short bus ride apart!

The school has a dynamic and tight-knit community, where your peers are your greatest resource. The third floor studio is full of creative energy, where ideas spark, people collaborate and friendships form.

Best of luck, and much love from your new family at Waterloo Architecture!

teams, or using resources provided at UWaterloo can allow you to gain exposure in technology and healthcare. Once you graduate from BME, you will be equipped with the skills necessary to work with doctors, policy makers, and biologists to improve healthcare. While first-year courses are fundamental to higher level courses, never give yourself too much pressure. Feel free to talk to your upper years, and we are more than happy to help!

identifying the root causes(s) of problems, developing processes for mitigating them, and understanding complex topics quickly. Every single company and industry benefits from this mindset.

Schedule time to do what you love and discover new hobbies. Consider getting involved with Engineering Ambassadors, Engineering Society, or Women in Engineering for leadership opportunities. Keep an open mind!

- Don't lose sleep over bad marks, your marks will go down, and you might not be the smartest kid in your class anymore. It's not a big deal, and everyone else in your class feels the same way.

- Work hard – university isn't as easy as high school, and you might need to step up your game. You may need to study when you didn't need to before, or put in extra hours. Just don't give up when trying to learn new concepts.

- Exploit your resources – there are TAs, peer groups, and professors to make use of. They're all there to help you, and you should utilize all the help you need. It'll make a huge difference when or if you find yourself struggling through material.

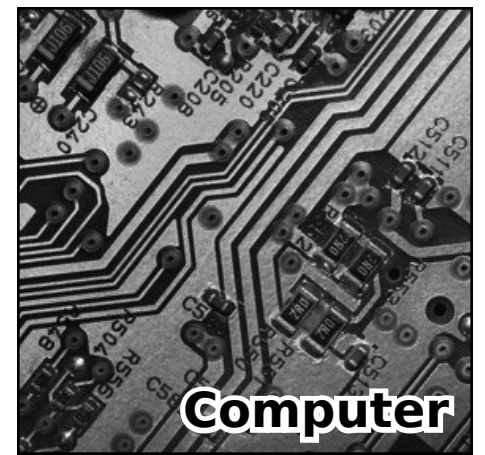
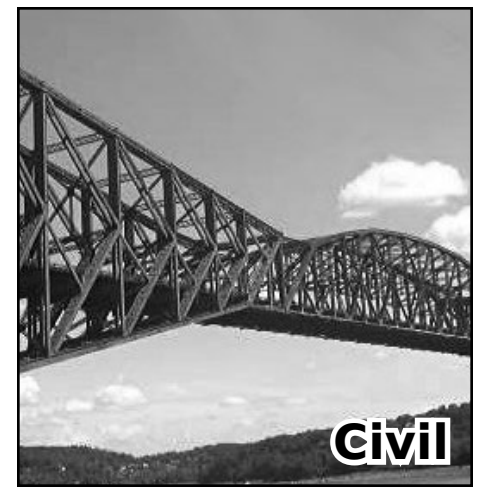
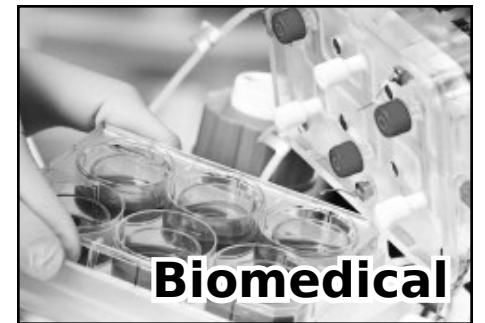
have during your time at University. There are plenty of resources on campus like TAs, the Engineering Society, and the First Year Office that can help you.

Finally, some of you are going to be introduced to co-ops in the next few weeks. It's going to be daunting, just spend some time perfecting your resume and practicing your interview skills, since there are so many great opportunities for Computer Engineers. You spend almost as much time on co-op as in class, so it's definitely worth the effort. Now go out there and enjoy the next few years of your life!

the new world that is university. Everyone will, so don't be afraid to reach out for help when you need it. Take advantage of your TAs, professors, advisors and classmates – you're all in this together. But while this is all very important, don't forget that university is a social place as well. Make time to go to the various events on campus, meet people and check out the various student teams that would love to have you join and help out.

work but don't hesitate to ask for help if you need it. We have a great department, with so many wonderful professors, TAs and students! Your upper years have been through everything you are and want to help.

Most importantly, don't forget to have fun! Try not to stick to just school; there is so much going on on campus, with eng-related teams and also campus-wide events and clubs. Stay passionate, 2022!



The Iron Crossword

Beasts of Legend

CAMERON SOLTYS
4T MECHANICAL

1	2	3		4	5	6		7	8	9		10	11	12
13				14				15				16		
17			18					19				20		
			21					22						
23	24					25	26	27					28	29
30					31			32						
33				34	35			36				37		
				38				39						
40	41	42		43			44					45	46	47
48			49			50			51	52				
53					54				55					
			56					57						
58	59					60		61					62	63
64				65				66				67		
68				69				70				71		

ACROSS

- 1: Internet exclamation of excitement (abbr)
- 4: No ___, ands, or buts
- 7: Mysterious sky light (abbr)
- 10: Candy Crush or Facebook, for instance
- 13: Not against
- 14: American conservative gun lobby (abbr)
- 15: System of Record (abbr)
- 16: Ontario's engineering accreditation organization
- 17: Wreckage, especially of a ship
- 19: Small piece cut from a larger one
- 21: High-flown
- 22: ___ or No ___ (same word twice)
- 23: Novel about early feminists in the US political system (3 wd)
- 30: New
- 31: Hurried
- 32: "___ boots were made for walking!"
- 33: On-screen display (abbr)
- 34: ___ May, British politician

DOWN

- 37: University in Halifax (abbr)
- 38: "Location unknown," in the military (abbr)
- 39: Internet speak for "In This Thread"
- 40: Place
- 43: English King "The Deed-Doer" (2 wd)
- 45: Archaic unit of energy used in HVAC systems
- 48: The Engineering Lounge
- 50: Ex-educational TV channel of "Breaking Amish"
- 51: "In ___!" Cry of exacerbated pet owner (2 wd)
- 53: Adorn in flamboyant clothing
- 56: Oven-baked flatbread
- 57: Noah led them into the ark by ___
- 58: For a phone, laptop, or battery pack
- 61: Mascot of engineering undergraduates (2 wd)
- 64: Gear
- 65: Engineering department for hardware-lovers (abbr)
- 66: "Float like a butterfly, sting like a ___"
- 67: Anger
- 68: Stag and ___
- 69: Domain of birds and planes
- 70: ___: Survival Evolved
- 71: Enter (abbr)
- 1: Bug spray that contains DEET
- 2: 6.022E+23
- 3: Sounded pained or despaired
- 4: Sent via MSN or Facebook (2 wd)
- 5: Michel ___, author of Copenhagen
- 6: ___ Gamgee, intrepid hobbit
- 7: Abbreviation identifying US Navy ships
- 8: French for "melted"
- 9: Most exciting week in first year (2 wd)
- 10: Put to practical use
- 11: Urine
- 12: Companion of Kettle
- 18: Large green organism
- 20: Route
- 23: Donation-supported group (abbr)
- 24: Celebration associated with getting an iron ring (abbr)
- 25: "___ Live," Great Big Sea song
- 26: Personal automobile
- 27: 25.4 mm (2 wd)
- 28: American surveillance agency
- 29: Jelly-like substance
- 35: "He ___ in the shadows"
- 36: Sickness acquired through copulation (abbr)
- 40: Mental illness that affects new mothers (abbr)
- 41: University of Rajasthan (abbr)
- 42: The years 13 to 19
- 44: In video games, a special move
- 45: French for "good evening"
- 46: Sun, Mon, ___
- 47: Secondary school associated with UofT (abbr)
- 49: Emperor of imperial Russia
- 52: Action of an unruly mob
- 54: Simple shirt
- 55: A sedative gas
- 58: Device used to take photographs (abbr)
- 59: Owl cry
- 60: Heroine of "The Force Awakens"
- 61: Not yet public (abbr)
- 62: Mineral-filled vein
- 63: Allow

Sudoku

#2017-FR

CAMERON SOLTYS
4T MECHANICAL

Easy

	1		9	4	2	3		
		9				2		
	8			5				
1		2			8	7		
5	6						2	3
		4	2			6		8
				3			6	
		7				8		
		3	5	1	6		7	

Medium

		3			2	4		
9	2			7				
1			4	3	9			
7					5	2		
4			3	9	7			5
		1	6					7
			9	8	4			1
				6			7	4
		9	7			6		

Hard

	8		2		9	3		7
		5				8	2	
							4	5
	9		6	1				
5		2		7		1		3
				3	2		9	
4	5							
	6	1				2		
8		3	1		4		5	

Solutions for previous crosswords can be found on *The Iron Warrior's* website at iwarrior.uwaterloo.ca/distractions.

THE IRON INQUISITION
Cameron Soltys 2T Mechanical

"What Was Your Favourite Part of Orientation Week?"



"Variety night—there was a manhunt game, and not only was it fun but it taught me the map of campus."

Stuart Alldritt, Computer Science '16



"Junkyard Wars!"

Hannah Yu, 2T Civil



"How about when we received the hardhats? I thought that was awesome. It's still up on my wall."

Joseph Perez, 3N Mechanical



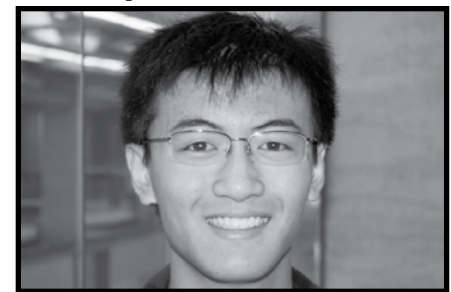
"Monte Carlo"

Shalin Upadhyay, 2B Computer Science



"Monte Carlo[...] You would know a decent amount of friends and it was a good place to hang out."

David Stephens, 4B Physics and Astronomy



"Junkyard Wars"

Archie Lee, 2B Mechatronics