



facebook.com/TheIronWarrior

twitter.com/TheIronWarrior

iwarrior.uwaterloo.ca

## Terrain Takeover!

It's Time to Fight for the Supremacy of Your Team

**BRYN CUMMINGS AND  
JOHNNY NORMANDEAU**  
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](http://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

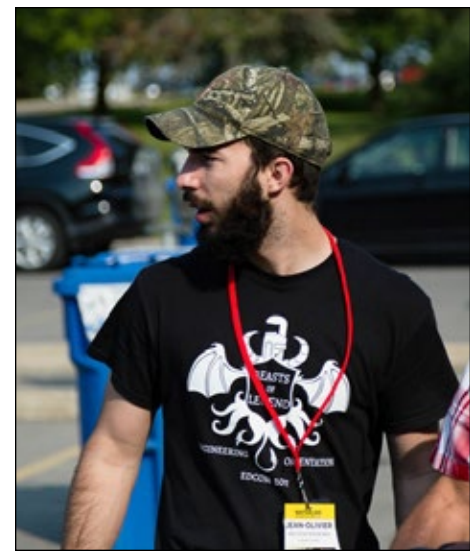


opportunities are endless! Other students clubs such as the Engineering Society, and Women in Engineering (WiE) will also be present, along with a few companies that sponsored Orientation Week. We, as SuperHuges, are a third of a student group known as EngFOC, and have spent over 10 months planning Orientation 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!



Orientation Kit filled with a lot of useful information, and some Orientation swag! You will also get a colour group shirt to help you identify your Terrain Takeover 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 hard hat, 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

You've made it to Waterloo Engineering - but so has everyone else here. Now you will need to distinguish yourself amongst your peers and equals. You have a lot to learn and not a lot of time to learn it, so pay attention, frosh. We are HeadCOM, the leaders of EdCOM, and we are in charge here. You have one job this week, frosh - one thing you need to remember: Impress us and impress EdCOM. We cannot stress this enough. EdCOM is the Education

Committee and we are your guides and leaders.

We are a dedicated group of senior students who are the most committed and most hardworking that Waterloo Engineering has to offer. That means that we are the most committed and most hardworking - PERIOD. EdCOM participates actively in the Engineering Society, WEEF, and the student teams that you will hear about on Thursday. We advocate for student safety and wellbeing throughout the faculty and we take care of our own. EdCOM is everywhere, EdCOM does everything, and Ed-

COM is not easily impressed.

If you earn your yellow hardhat, it will be EdCOM who gives it to you. This will mean that you are a true Waterloo Engineering student. Once you have your hardhats, we will keep testing your ENGINuity and teamwork during JunkYard Wars, your creativity and perseverance during Scunt, and we will see your enthusiasm and energy at Engineering Concert. At the end of the night, based on everything you have shown us, we will decide which team has triumphed in their Orientation Week. We will be watching.



## Don't Panic!



**RAFIQ HABIB**  
INCOMING  
EDITOR-IN-CHIEF

Hi Class of 2023, and welcome to the University of Waterloo! Congratulations on your incredible achievement of getting into Engineering! You're part of the family now :).

It's only been one year I was in the same shoes as you: excited for the full university experience, but also uncertain about how the first few weeks were going to be. Now, coming back here after my first co-op term, it really feels like I've made the right choice coming to Waterloo. Hopefully you too will feel that way and come to feel at home in the hodgepodge of buildings we call our campus (I say that in the most endearing way possible).

A year ago, though, there was so many different things that I was worried about moving into V1, it felt quite different – overwhelming would be an understatement. So, at the risk of sounding like an adult (a status that I am not at all ready to accept), here are a few things I think would have really helped me to keep in mind in the first few months of university life:

First and foremost, don't fall into the trap of self-isolation. Having your own space for the first time that is so close to where most of your daily campus activities will take place can make it easy to turn your

dorm into a sort of "safe space" to retreat to as soon as you are done your classes. But, as enticing as the quiet, comfortable room may be, fight the urge to use it as your only hangout. Trust me – too much solitude (or MMO RPG-ing) makes your brain go really weird and can get you to start overthinking things unnecessarily. Instead, when you are getting stressed, go do something with classmates or friends to give your mind a bit of a break. The unevolved lizard part of your brain will thank you.

Secondly, please, please, please do fun extracurriculars. University and co-op aren't all about farming achievements for your resume. It's also a time to explore, enjoy, and experience new things. If you feel like trying out something completely random like underwater basket weaving, go for it (there's no club for that yet but you could start one)! And if you're not sure whether you will like an extracurricular or not, try it out. You have nothing to lose and a cool hobby or friends to gain. In fact, make a list of all a bunch that seem like they could be interesting and tour through them. There's something here for everyone.

And finally, don't lose sleep over a bad mark. There are going to be times when you do really well, and you should be proud of that achievement. There are also going to be times when you don't do well, and you should be okay with that too. Just make sure that you understand what went wrong and adjust accordingly. You may need to study more or ask for help. It may just be

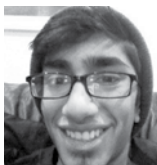
that the professor doesn't give high marks. Whatever the case, keep looking forward. If you ever feel overwhelmed with school, drop by the First Year Engineering Office in E2. In fact, I'd encourage dropping by there for a quick hello whenever you get a change in your first few weeks, regardless of how you feel. Everyone there is happy to help you with your academic priorities and offer guidance on how you can get the most out of your time at Waterloo.

I'm going to stop with the advice there, because there's a lot more throughout this entire issue, with suggestions on different ways to deal with stress, words of encouragement, and a detailed orientation week schedule with everything you need to know about the upcoming week. For those of you that may be interested in getting involved with the student body, Engineering Society (EngSoc) introductions, activities, and role descriptions can be found on pages 4 and 5.

Now, time for a shameless plug: The Iron Warrior is Waterloo's Official Engineering Newspaper. We are always looking for new members to join our team, whether it be as writers, editors, web designers, advertisers, or photographers. If you love writing for fun or want to improve your writing skills come on by to one of our meetings, held weekly at 5:45pm on Tuesdays in E2, room 2347. On the fence? Email [iwarrior@uwaterloo.ca](mailto:iwarrior@uwaterloo.ca) for any questions you may have.

Have a great orientation and I'm sure you'll all have a great time at Waterloo. Here's to a great term and a great 5 years!

## Fun Times Ahead Forever!



**HASAN AHMED**  
OUTGOING  
EDITOR-IN-CHIEF

Well well well, welcome to Waterloo! That's a lot of Ws, but let's be real. You're gonna get a lot of those in University. Granted, you might take some Ls too but that's only part of the learning process. As outgoing editor-in-chief, I know that. But I'm still here! And I hope you take these opportunities to not only learn academic, engineering related material, but also more about yourselves and what you can handle. You all made it in here after a really competitive application process, but you'll find the atmosphere in the actual program to be very welcoming. Everyone's here to help, from your O-Week leaders, professors, teaching assistants, and so many more resources I'm not going to blab about here.

I remember when I got to Waterloo from Mississauga. It's not a far distance, but I still felt the same way you probably do; nervous, really anxious, but at the same time very excited. I love science and math, and I wanted to do the best I could at Waterloo. Orientation Week really helped me connect

with some upper years and make some first year friends, some of which I still hang out with today! If you're like me and had no other friends coming in to UWaterloo, take this opportunity to make them! A lot of people are probably in the same situation, so I recommend checking out as many events as possible!

To digress from O-Week a bit, I'll give you some actual school tips. First, learn how you learn. Some of you may know this, or some of you are like me and think you know this. Hey! Things change! My learning style changed a lot but now I'm doing really well in school because of how I've grown. The sooner you learn your learning methods, the better your grades will be. But obviously it's more about getting practical experience than your grades. So my next tip is to get a resume drafted as soon as possible for critiquing. You'll be asked to do this in your first term, and it's great for upper years to critique your resume for coop applications, which some of you are doing right away. Finally, my last tip is sleep. I get seven to eight hours of sleep every night! The only times I don't get this is when I don't have much work to do so I relax and play video games till 3AM. While I don't recommend this every day, the occasional splurge is fine.

Other ways to have fun outside of OWeek include joining clubs and student design teams. A lot of these are described in the paper on page 16/17, so get a good read on these. Believe it or not, you have more time in 1A to try as much as possible. I know that sounds weird considering all the transitioning you have to do to university lifestyle, but trust me. Explore all that you can now, and then you'll find what you like and don't like, which means you can focus more on the enjoyable stuff in upper years and make a larger impact. For me, that was Iron Warrior, and now I'm an outgoing Editor-in-Chief. So I'm happy with the mark I've made.

Inside this issue of the paper includes your O-Week schedule, colour group information, info from organizers, message from the Dean, info about services, a testimony about your program, and many other interesting tidbits. I recommend reading this whole paper through, and even doing the crossword or sudoku. Or you can save that for procrastination material when you're doing your first assignment (but still do your homework please).

Anyway, I'm off on an 8-month coop, but I'll still be part of Orientation Week as a Huge. If you see me, say hi! And good luck in your respective program! You'll do great!

Front Page Photo Credits: Waterloo Engineering Society

## Advertise With Us!

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

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

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

For more information, please visit [iwarrior.uwaterloo.ca/advertising](http://iwarrior.uwaterloo.ca/advertising) or contact us at [iwarrior@uwaterloo.ca](mailto:iwarrior@uwaterloo.ca), 519-888-4567, Ext. 32693

**Issue 1 Deadline: Friday, September 21 at 6:00pm for publication on September 26, 2018**

Send your submissions to [iwarrior@uwaterloo.ca](mailto:iwarrior@uwaterloo.ca)

**Fall 2018 Publication Schedule:** September 26, October 17, October 31, November 14, November 28

### THE IRON WARRIOR

The Newspaper of the University  
of Waterloo Engineering Society

**Outgoing Editor-in-Chief**  
Hasan Ahmed

**Incoming Editor-in-Chief**  
Rafiq Habib

**Contributors**  
Pearl Sullivan  
Isabella Suppa  
Sarah Mason  
Mariko Shimoda  
Katie Arnold  
Michelle Teplitski  
Michael Beauchemin  
Thomas Dedinsky  
Benjamin Beelen  
Andrew Dawson  
Grant Mitchell  
Emma Swarney  
Ashley Clark  
Theo Morissette  
Zemann Sheen  
Julian Faita  
Andrew Broadbent  
Siddharth Kumar  
Lindsay Glofcheskie  
Julia Reinstein  
David Nairn  
Richard Culham  
Cindy Howe  
Ross Ricupero  
Rain Maki  
Jason McMillan  
Elle Clarke  
Jan Lau  
Tiffany Chang  
Zahra Khosa  
Austin Cousineau  
Hannah Murphy  
Gabrielle Klemt  
Lexa Michaelides  
Simon Grigg  
Awn Duqoum  
Joshua Kalpin  
Reno Natalizio  
Peter Teertstra  
Lyndia Stacey  
Aaron Lam  
Alex Vasile  
Kyle Pohl  
Cameron Soltys

**ADVISORY BOARD**  
**Off-Stream Editor-in-Chief**  
Samridhi Sharma

**Executive Members**  
Emma Swarney  
Ashley Clark

**Students-at-Large**  
Cecile He  
Alyson Skidmore

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](mailto:iwarrior@uwaterloo.ca)

# Class of 2023, 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 post-secondary 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, part of the Engineering Undergraduate Office located in E2, 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.

Our new E7 building will be occupied soon and all Engineering students will have access to the facilities starting

September 4th. E7 will be the main entrance for the Faculty of Engineering, so I invite you to visit the building. A focal point will be the Engineering Ideas Clinic, along with a second and larger C&D shop, study space for 150 students, project design and build space for student teams and capstone projects, a pitch area, lecture halls and the Dean of Engineering Office on the 7th floor (note the First Year Engineering Office remains in the E2 building). The seven lecture halls will be used for classes starting in September.

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 2023, welcome to our Faculty and enjoy your Orientation Week!



Sincerely,  
Pearl Sullivan  
Dean, Faculty of Engineering

## Welcome New Archies!

**ISABELLA SUPPA AND  
SARAH MASON**  
ARCHFOC

Hello! Our names are Isabella Suppa and Sarah Mason. We are Federation Orientation Committee members at the University of Waterloo. We, along with the rest of the Orientation team, have been working to give you an incredible introduction to the School of Architecture. Architecture Orientation 2018 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 carts around the

school.

Monday will be focused on acquainting you with Waterloo Architecture and its surrounding neighbourhood. In the morning, you will be participating in Cambridge's very own amazing race! In the evening, a delicious dinner will precede a night full of art, music and mingling. 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 coloured 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 afternoon will conclude with a visit from the Architectural Engineering students to participate in Orientation's very first Egg Drop! Use your team building skills and architectural tinkering abilities to engineer a complex device to protect a single, raw egg from 30 ft drop.



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

As the Architecture Federation Orientation Committee (ArchFOC), we're 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. We have an amazing community, faculty and student body that cannot wait to welcome you into your new home.

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 by email [archorientation@uwaterloo.ca](mailto:archorientation@uwaterloo.ca).

Can't wait to meet all of you! Welcome to the Arch Family!

# What is the Engineering Society?

**MARIKO SHIMODA AND  
KATIE ARNOLD**  
ENGSOC 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. We exist to support you academically (you'll need it), socially (friends are good), and professionally (jobs are also good) during your time here at Waterloo. YAY! EngSoc serves its members (YOU) in three main ways: representation, services, and

events.

EngSoc is led by an Executive team who work on your behalf with the Faculty of Engineering, the university's student union, external engineering groups, and many more organizations. The Executive will work hard for YOU. The EngSoc Executive consists of the President, VP Academic, VP Student Life, VP Communications, and VP Finance.

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 (ie. tuition hikes), 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. They attend the council meetings, bring concerns forward from their class, and report back to the class on important issues. ANYONE CAN ATTEND MEETINGS AND LEARN ABOUT THE HAPPENINGS! Interested in being a class rep? The EngSoc Executive will be coming around during the first two weeks of class to run elections.

See ya around, don't be a stranger!



## Welcome From the Presidents

**MARIKO SHIMODA AND  
KATIE ARNOLD**  
ENGSOC PRESIDENTS

Hi Class of 2023! We are your Engineering Society Presidents: Mariko Shimoda (A-Society) and Katie Arnold (B-Society). We are THRILLED 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 all your beautiful selves. We advocate on your behalf to the faculty, the university, the student union, and to other groups that affect your undergraduate experience. So, we need your input! Feel free to stop us with

any questions or concerns you have about school, university issues, or the Society itself (or life in general, life is hard). 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](mailto: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 9th. It's a BOT (Beginning of Term) Party! Everyone is welcome, come meet your fellow first years as well as some fun upper years! The rest of our events can be found on the EngSoc website, [engsoc](http://engsoc.uwaterloo.ca).

[uwaterloo.ca](http://uwaterloo.ca), so make sure to check it out! There is an event for everyone, plus they're a great way to make friends (and potential love interests), have fun, and get involved in university! EngSoc is HERE FOR YOU, and we hope that you are excited to join the engineering community. Spot us at Orientation Week in our white hardhats! Ask us your questions, bring us your concerns, and we will work for you. We look forward to having you in our family, and we want to wish you the best of luck for your time here at Waterloo. You have a home with us, and there is always room for everyone. Have an amazing Orientation Week!



## Dollar Dollar Bills Y'all

### Meet Your VPs Finance

**MICHELLE TEPLITSKI AND  
MICHAEL BEAUCHEMIN**  
VPS FINANCE

Welcome to Waterloo Engineering! We are the Vice-Presidents, Finance of the Waterloo Engineering Society, Michelle Teplitski and Michael Beauchemin! Michelle, A-Soc's VPF, will be serving you this fall, and Michael, her B-Soc counterpart, will take office in the Winter. We are in charge of managing the Engineering Society's funds in ways that will 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 \$15.90 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! We also manage the major service operations that EngSoc runs, including Novelties for all of your swag needs, RidgidWare, and our spacious student lounge, POETS! This year, RidgidWare will be running in the newly opened Engineering 7 building! This project has been a long time coming and we are really excited to start rolling it out this Fall! If you're looking for electronic parts or need help with any hardware projects, be sure to check it out once it opens!

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 Improvements Fund (ECIF) Committee each term, which allocates from the ECIF for industrious students to make purchases to improve student life at Waterloo for everybody in the faculty. 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 1327 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 Marble Slab) 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](http://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: Andrew Dawson (VP Communications), Thomas Dedinsky (VP Academic), Mariko Shimoda (President), Emma Swarney (VP Student Life), and Michelle Teplitski (VP Finance)**

# We Help You Survive School

## A Warm Welcome from Your VPs Academic

**THOMAS DEDINSKY AND  
BENJAMIN BELEN**  
VPS ACADEMIC

Hey there, Class of 2023! We're Thomas Dedinsky and Benjamin Beelen (Ben), and we are your Vice-Presidents Academic. Thomas will be on term in the Fall (A-Society), and Ben will be on term in the Winter (B-Society).

The main 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 coun-

cils and committees.

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 both EngSoc AND academic reps for the term. The job of academic reps 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!

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.

If you have something you would like to say to us, don't wait until the

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



# Keeping Waterloo Connected with Other Schools

## Hello from the VPs Communications

**ANDREW DAWSON AND  
GRANT MITCHELL**  
VPS COMMUNICATIONS

Hey there! We are Andrew Dawson (A-Society VP Communications), and Grant Mitchell (B-Society VP Communications). We are responsible for all of the Waterloo Engineering Society's external relations. We represent our society at the provincial and national levels, speaking on your behalf with the governing bodies of the Engineering Student Societies' Council of Ontario (ESSCO), and the Canadian

Federation of Engineering Students (CFES), as well as Professional Engineers Ontario (PEO).

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. What are conferences you may ask? Conferences are held by the external organizations to help bring engineering students together from across the country. Attending conferences is one of the many ways that you can get involved with the larger

engineering community and 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.

We also oversee internal affairs such as advertising and branding for the Engineering Society, as well as the Waterloo Engineering Competition (WEC). Advertising includes the mailing list, social media, the website, and various other advertising methods. WEC is a challenge open to all years and disciplines in engineering, in which students face various challenges in order

for a chance to compete at the provincial and national competitions.

If you would like more information about what happens at conferences, competitions, our media, and what you stand to gain, feel free to find Andrew in the Orifice during the Fall term, Grant in the Winter, or send an email to [vpcomm.a@engsoc.uwaterloo.ca](mailto:vpcomm.a@engsoc.uwaterloo.ca) or [vpcomm.b@engsoc.uwaterloo.ca](mailto:vpcomm.b@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!

# From Resume Critiques to Ramen Eating

## A Message From the VPs Student Life

**EMMA SWARNEY AND  
ASHLEY CLARK**  
VPS STUDENT LIFE

Hello First Years! We are Emma Swarney and Ashley Clark, and we are your respective Fall and Winter Vice Presidents of Student Life. Our job is

to improve your life through Student Services (like resume critiques and technical workshops), Outreach and Volunteering opportunities around campus and in the greater Waterloo Community, and finally help you *enjoy yourself* at social events (which range from D&D sessions to Ru Paul's

Drag Race Viewing Party).

Here's the highlight reel of what we're going to be running this term:

Student Services are events tailored to supporting your professional development. We run resume critiques at the beginning of the semester, which are very important if you're 4-Stream!

Our upper years will sit with you for sometimes hours and help you develop a fire resume, with some serious knowledge and know how. We also run Professional Photoshoots (because yes, you should make a LinkedIn profile) and workshops (UX design and data science), cover letter writing and interview skills sessions.

Want to get involved in the community? Sign up to teach kids about science at our trip to THEMUSEUM in Kitchener! Have a bunch of clothes you don't use anymore? Donate them to our clothing drive! Do you qualify as a blood donor? Donate some blood with us! We also run Bus Push, where you literally push a bus to raise money for the Canadian Heart and Stroke foundation, a Pay It Forward Event, collaborate with Women in Engineering and even go to the annual Santa Claus Parade.

Finally, have some fun. Come out to some of our spiciest events of the season, which include a new Ramen Eating Contest, Mocktail-Making, RuPaul's Drag Race Viewing Party and "Speed Dating" (to make friends!!). We also run a semi-formal event towards the end of the term, as well as EngPlay, a theatrical production put on entirely by engineers. Stay tuned for audition dates! We also run Coffee Houses, LAN parties, D&D, fields trips, and even free food events, so there's something for everyone.

We're looking forward to seeing you! Follow our facebook page today, or email us if you have a question. We are *always* happy to chat.



**B-Society, from left to right: Benjamin Beelen (VP Academic), Ashley Clark (VP Student Life), Liam Yeates (Outgoing VP Finance), Katie Arnold (President), Michael Beauchemin (Incoming VP Finance), and Grant Mitchell (VP Communications)**

## WEEF Is Good

**THEO MORISSETTE AND  
ZEMANN SHEEN**  
WEEF DIRECTORS

Welcome to all new engineering undergrads, and congratulations on your achievements so far. Over the next few years, you will have the opportunity to contribute to all the reasons that made you choose this school, and the Waterloo Engineering Endowment Foundation (WEEF) is one of the best ways to get started.

WEEF was founded by two Waterloo Engineering students, Avi Belinsky and John Vellinga, in 1990 with the goal "to continuously improve the educational environment for undergraduate engineering students, and maintain our outstanding reputation." Through donations from the student body, employer matching contributions, and alumni, WEEF has accrued over 13 million dollars in principal. This fund is professionally managed and the interest earned is distributed each term to a series of proposals that are evaluated by a student only council. It is this council for which you will be recruiting two representatives from each of your classes. The representatives will be voted on by the class and will attend proposal presentations and decision meeting to allocate the funding available.

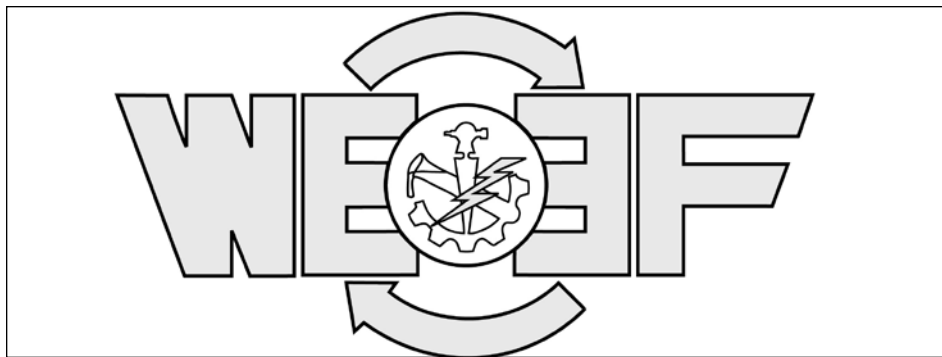
The presentations will be given by faculty members, student teams, and clubs. As a

representative, you will have the chance to see what each faculty is doing with their facilities, what student teams are working on, and what different clubs in the engineering faculty are up to. Faculty (i.e. possibly your professor), staff, and upper year students will be presenting to you. With each class represented, all departments vote on the funding allocation and help guide the University's funding decisions. Yes, the Engineering departments do take into consideration what students are funding when allocating their own budgets. This is how WEEF gives a strong voice to the students.

Over its 25 years, WEEF has funded many of your lab facilities and supported student teams in their accomplishments. If you see a yellow WEEF sticker on anything in the school, that was funded by a student only council. Take a look around your labs sometime; there are lots of these stickers. And if you're planning on joining a student team, you should know that WEEF contributed one million dollars to the construction of E5 and its Student Design Center.

So if you enjoy being more involved and better informed about your school, be sure to put your candidacy forward when we visit your class in the next couple of weeks or contact us at [weef@uwaterloo.ca](mailto:weef@uwaterloo.ca).

Good luck on your academic and professional careers.



## Waterloo Engineering Competition

**ANDREW DAWSON**  
A-SOC VP COMMUNICATIONS

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 McMaster University in Hamilton, early in 2019. 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.



## Engineering Student Societies' Council of Ontario

**JULIAN FAITA**  
ESSCO VICE PRESIDENT  
COMMUNICATIONS

The University of Waterloo is one of sixteen universities from across Ontario that makes up the Engineering Student Societies' Council of Ontario (ESSCO). My name is Julian Faita and I am ESSCO's Vice-President Communications for the 2018-2019 year.

### What does ESSCO do?

ESSCO represents the interest of the Ontario undergraduate engineering students to professional associations, academia, and government. Each of ESSCO's full-member schools holds one seat on the council, allowing them to voice their school's concerns and have a say in ESSCO's direction.

ESSCO also holds numerous conferences:

- President's Meeting (PM)
- Professional Engineers Ontario - Student Conference (PEO-SC)
- First Year Integration Conference (FYIC)
- Annual General Meeting (AGM)

Each conference gives students the opportunity to grow their leadership skills, share ideas, and learn how to be impactful and promote positive change. If you are interested in attending any one of these conferences as a delegate, contact your Engineering Society's Vice-President Communications (or equivalent) found at [essco.ca](http://essco.ca) under Our Members.

FYIC is a conference tailored to first-year students hosted by Laurentian Uni-

versity in early February 2019, and I highly recommend attending!

Apart from conferences, ESSCO also organizes a number of competitions and events:

- Ontario Engineering Competition
- ESSCO Soccer Tournament
- ESSCO Hockey Tournament
- ESSCO eSports Tournament
- Wonderland Math & Physics Day

Get involved as much as you can (with a healthy balance)! As a student in engineering, there are many opportunities to do great things and make positive change. Getting involved in any kind of events can really make a difference. If you wish to learn more about ESSCO or how you can get involved, feel free to email me at any time, follow us on social media, and check out our website

at [essco.ca](http://essco.ca).



KITCHENER WATERLOO

**TRAVEL**

Clinic

Travel Vaccines  
& Advice  
by Appointment

Health Canada Certified for Yellow Fever

**519.570.4208**

[www.kwtravelclinic.ca](http://www.kwtravelclinic.ca)

**Physicians Certified in Travel Medicine**

# Engineering Society Services

**MARIKO SHIMODA  
AND KATIE ARNOLD**  
PRESIDENTS

Services? We got em. The Engineering Society is proud to offer an amazing number of services. They're here for you, you may as well use them!

## C&D (Coffee and Donut)

EngSoc runs a coffee and donut shop with the lowest prices on campus. Donuts, Muffins, Beef Patties, Sushi, Arizona Iced Tea, AND OF COURSE COFFEE! Head over to the Carl Pollock Hall (CPH) Foyer and Engineering 7! We don't accept Watcard (sad), but we take all the cash and debit you can throw at us!

## The Engineering Society Office

Also located in CPH. It is a swell place to get cheap printing, report binding, and photocopying! Scan all your documents for FREE! You can also sign out board games, pool and foosball equipment, and pick up your student deals sticker! This is also where you can find the EngSoc executive team, working to make your life better! Swing by, you are always welcome and we would love to meet you.

## POETS!

This is our student lounge, where everyone is welcome! Hang out between classes, microwave your lunch, play a game of pool, or even take a nap. POOL TABLE, FOOSBALL TABLE, PING PONG TABLE, MOVIES!!!

## Novelties

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. Sweaters, keychains, glassware, and much more!

## RigidWare

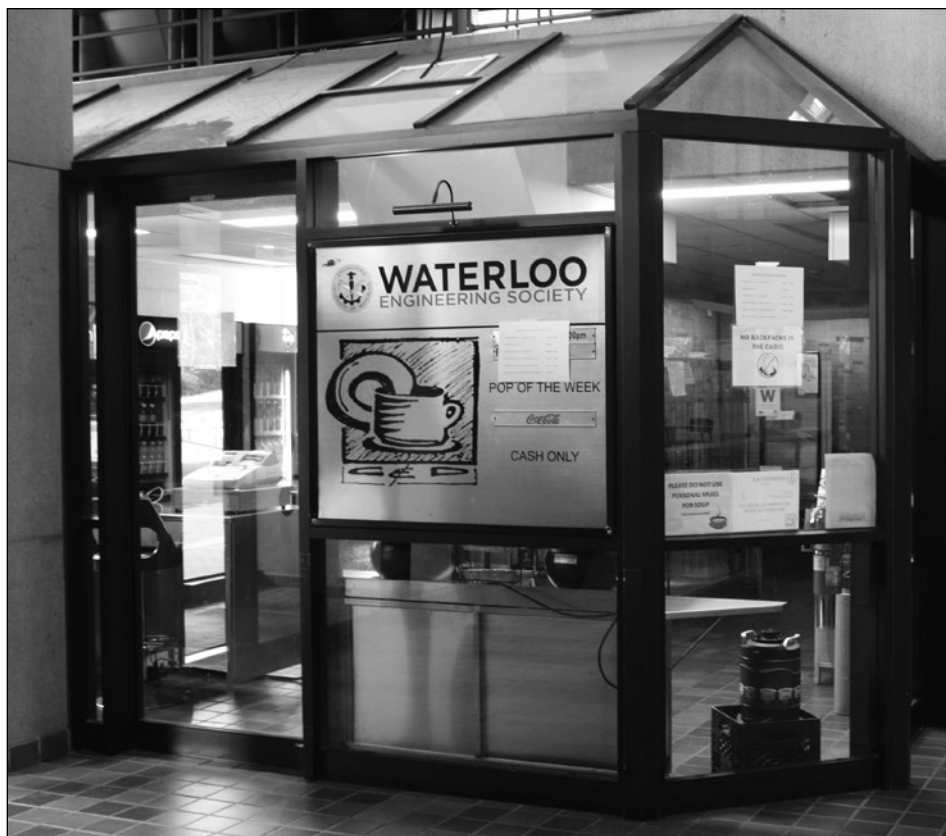
Rigidware is our hardware and electronics store/service, and is a handy source for materials for both hobbies and projects! We have supplies such as LEDs, breadboards, Arduinos, and more! WE ARE NEWLY LOCATED IN E7!

## Exam WHAT?? 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. It can be found on our website, [engsoc.uwaterloo.ca/exambank](http://engsoc.uwaterloo.ca/exambank).



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



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

## First Year K00lmissioners!

**ANDREW BROADBENT  
AND SIDDHARTH KUMAR**  
FIRST YEAR COMMISSIONERS

We (Siddharth and Andrew) are the incoming first year commissioners, we're some totally k00l kidz who have some great events coming up.

Andrew will be running the mentorship program this fall! He's Canadian, born in Toronto but, moved to Saskatchewan and after that spent a few years in Bangkok. Our mentoring program matches YOU with an experienced upper year in your program!! Support is super important, and they can help in more ways than you can imagine. EMAIL [FIRSTYEAR@ENGSOC.UWATERLOO.CA](mailto:FIRSTYEAR@ENGSOC.UWATERLOO.CA) FOR HOW TO SIGN UP!

Andrew's first year tip: If there's one thing i'm going to stress to you that I hope you remember it's that university is academic but, you will also develop more socially more than any other time in your life. Don't neglect this part of the experience, be social, have fun,

make mistakes.

Siddharth will be running the First Year Engineering Leadership Conference (FYELC)! Siddharth is from Calgary, AB, in second year mechanical engineering. He's a hip hop dancer, theatre actor and loves fitness! This is a special day event for all of you who are looking to develop your leadership skills, network with upper years and professors, and learn how to get more involved in the engineering community. EMAIL [FYELC@ENGSOC.UWATERLOO.CA](mailto:FYELC@ENGSOC.UWATERLOO.CA) FOR HOW TO REGISTER!

All in all, we're just people who used to be in first year, we're here to help you out so by all means any questions big or small, school related or non-school related just ask. Be sure to join your frosh facebook page and follow the UW first year commissioners instagram!

TL;DR K00l kids in second year want to help you mech the best of first year, ask us questions and let us know how we can help you out!

[uwaterloo.ca/exambank](http://uwaterloo.ca/exambank).

## ATTENTION 4STREAMS AND KEEN 8STREAMERS!

Finding that first job can be scary, but don't worry! WE ARE HERE. 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. Missed a session? No problem: go to our website where you can be matched with an upper year who will critique it online.

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. We know engineers hate writing, so we also be running a cover letter writing workshop!

Taking care of your mental health can be hard, 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. Like mental Health Awareness Week and bringing puppies to our student lounge during exams!

## UW MATES

WANT TO TALK TO SOMEONE? 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 in the engineering buildings. 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](mailto:csmates@uwaterloo.ca).

## Does This Count as a Bi-Line?

**LINDSAY GLOFCHESKIE  
AND JULIA REINSTEIN**  
PRESIDENTS, UW ENGIQUEERS

Hi y'all, we're the current presidents of UWaterloo EngiQueers and we hope your first days at Waterloo are living up to all your expectations. If you're like us, you might be missing out on a very important part of your university experience so far, and we're here to tell you that we can, in fact, make it gayer (queerer, bier? ...whichever term you prefer, we're not here to tell you to conform). UWaterloo EngiQueers is essentially a social group for queer engineering students... and straight engineering students...and non-engineering students....and, y'know what? We're just a group for everyone. We want to make sure that all students have a place where they feel respected and are allowed to be themselves (even if they don't know who that self is yet).

We spend 3+ hours in POETS each week as a big friendly group with general chatting, queer movies, and board games. Every week we all sit in a circle and introduce ourselves with our name, program, pronouns, and the question

of the week (past examples include: if you had a random animal stuck in your house, what animal would you least like it to be? And, if you could only wear one colour of shirt for the rest of your life what would it be?). Along with social events, we try to run an educational event each term. This term we're bringing in someone from the SHORE Center to talk about sexual health (because, let's be honest here, who actually learned anything about queer sexual health in school?).

Anyone and everyone are encouraged to join, the more learning the better! However, if you find yourself reading this and don't know if you're ready to come hang out with us, that's completely ok! Sometimes just knowing we're able to be visible and allow others to feel comforted by our presence is all we want.

If you ever want more information about EngiQueers please feel free to reach out and email [engiQueers@engsoc.uwaterloo.ca](mailto:engiQueers@engsoc.uwaterloo.ca), we'd love to answer your questions.

Our first meeting is: Monday, September 10th at 6pm in POETS. There will be free food!

# Meet Your Colour Groups!

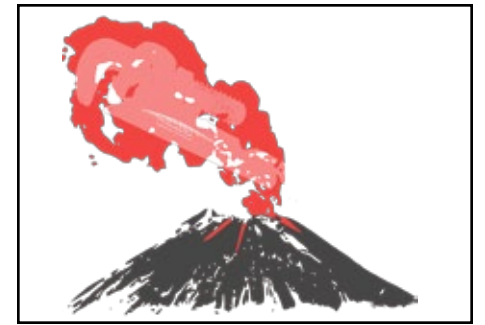
## LIGHT RED - Active Volcano

**ELLEN, KIERA, TIFFANY,  
STEFAN, TIFFANY**  
LIGHT RED HUGES

The sky turns blood red as fire and

burning ash explode from the ground, thundering down the slopes in a pyroclastic flow. Tremors shake the ground wherever we pass, we are a force to be reckoned with. We are ear-shatteringly

loud, we are hot like lava. Volcanoes, it's time to get fired up!



## DARK RED - Grand Canyon

**ALEXANDER, TARA, PRESISH,  
SAMANTHA, BRYAN, SPARSH**  
DARK RED HUGES

This masterpiece is amongst the Earth's greatest wonders, canyon, moun-

tain, and stream. The trinity of wonders in one! Legends say that Chuck Norris once dug a small hole with a spoon, and today we call it the Grand Canyon. The Dark Red Land of the Titans is for you to flourish in. Your story starts here, and

its about to get G R A N D. Let yourself go during Engineering Orientation Week 2018.



## LIGHT ORANGE - Wild Savannah

**ANASTASIYA, MARI-  
NA, RACHAEL, NICHOLAS,  
BARAA, GEORGE**  
LIGHT ORANGE HUGES

The creatures of the savanna rise as the sun peaks out from the horizon. They

gather and bow out of honour and humility. The newborn King of the Pride is raised by the mandrill to be glorified by all. Everything the light touches belongs to the Pride; the grasslands that dance when the wind blows, the streams of water that have never-ending flow, the

trees that provide shade for the weary. Even if the kingdom cries out for rain, it knows the Pride will come to quench it. The Pride rules over all and always comes out on top; O-week is no exception.



## DARK ORANGE - Autumn Tundra

**NICK, JESSICA, HENRY,  
JANE, KINGSLEY, ANIKA**  
DARK ORANGE HUGES

There's a place where the tree line stops, and adventure begins. The ruinous conditions of this wonderful place are so harsh, that only fearless hunters and gritty survivors can make it their home. Under the

evening light, a sea of mesmerizing colours ebbs and flows, made up of northern flowers and vigilant shrubs. Amongst it all, one hue resonates with your wanderlust like no other. Dark Orange. When you see it, you know where you are, and that this is where you want to be. Basking in the dying light with your new comrades, on an uncertain shore of cold rock and frozen soil,

rubbing your blistered hands together for warmth, the explorer in your heart jumps to life like a diesel engine. Chronicles will be written, friendships will be forged, victories will be wrenched from the jaws of fate. Back in the tent, as the sun fades and night gathers, you dream of what magnificent things are to come. Welcome to the Autumn Tundra.



## LIGHT YELLOW - Sandy Beaches

**SARA, DANIEL, ANUSHKA,  
HEATHER, NICOLAS, CINDY**  
LIGHT YELLOW HUGES

Light yellow is going to the beach for

one last summer trip before the offiishell start of your undergraduate degree. Get ready for a week you'll never forget, where you'll have the time of your life meeting new friends, soaking up

the sun, and enjoying university spirit! Don't forget the sunscreen and sea you at the beach!



## DARK YELLOW - Great Plains

**JACKSON, RYAN, NOAH,  
THOMAS, SAHAD**  
DARK YELLOW HUGES

The Great Plains has strength in numbers. Stretching across many different

continents and expanding across various ecosystems, plains are home to some of the biggest and most fearsome creatures nature has to offer. We have congregated here for Orientation Week, and with the help of your fellow Bigs and Huges,

you will be able to conquer the various challenges and hurdles placed before you in order to earn your Hard Hat and become a true beast of prey. Welcome, first years.



## LIGHT GREEN - Tropical Rainforest

**TIM, SEHRISH, DAN, PINYU,  
ASHLEY, THERESA**  
LIGHT GREEN HUGES

"In the jungle, the mighty jungle, the Light Green leaders aren't sleeping because we're too busy getting ready to

win orientation week!

Exciting and full of life, you'll find all sorts of creatures in the jungle from tigers to monkeys and according to the documentary Jumanji: Welcome to the Jungle (2017), you might even find Dwayne (The Rock) Johnson here!

We'll be the wildest team for sure, with all our monkeying around, but that doesn't mean we can't do great things with just the Bear Necessities!

Whether you walk, slide, fly, swim, or hop, the Tropical Rainforest welcomes you!"



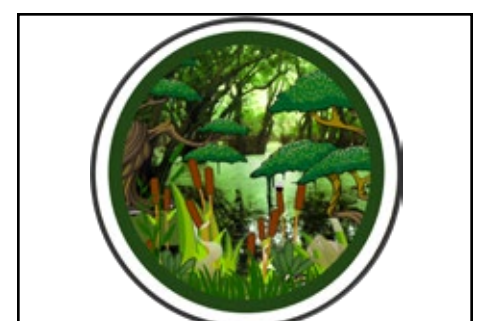
## DARK GREEN - Murky Swamp

**LAURA, JEAN, JESSICA, AL-  
EXANDRA, CHUNG, RYAN**  
DARK GREEN HUGES

"From the Will-o'-the-wisp to the Hydra to the Lizard Man of

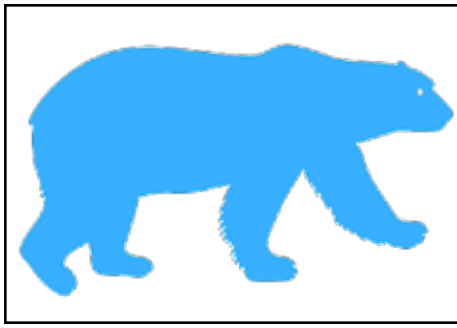
Lee County, the swamp has never had a lack of fictional monsters. But with every myth, there is some truth. Gargantuan alligators and 30' anacondas roam its waters, seeking their next prey. Be careful, or you just might be next.

Although maybe you will be the most dangerous creature within its waters. Get down 'n dirty, and make this swamp all murky"





# Which Terrain Will Take Over?



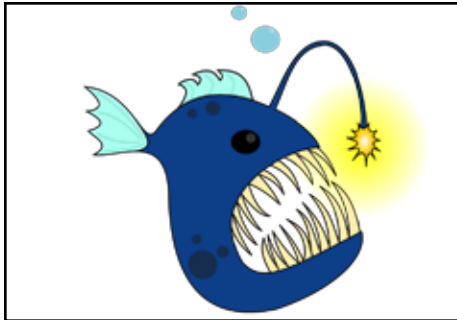
**JACK, LIAM, SINA, KELSEY, LAURA, LORRAINE**  
LIGHT BLUE HUGES

“The snow glows white on the Arctic Circle tonight  
Every light blue leader to be seen  
A kingdom of icy Warriors

## LIGHT BLUE - Arctic Circle

And we want you to succeed  
The wind is howling like this swirling storm outside  
Gonna win it all, heaven knows we've tried  
Don't let them past, don't let them win  
Be the fearless first years you've always been  
Compete, a feat, don't let them know

Well, now they know  
Let it go, let it go  
Can't hold it back anymore  
Let it go, let it go  
We are always keeping score  
I don't care what they're going to say  
Let the light blue rage on  
The geese never bothered us anyway”



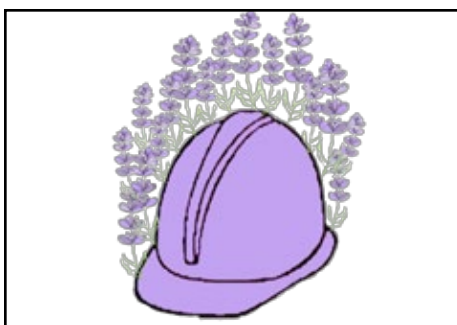
**MEGAN, IAN, EMILY, TIARA, NOAH**  
DARK BLUE HUGES

The ocean rules over seventy percent of the Earth, and now we have our sights

## DARK BLUE - Ocean Depths

set on all of it! With the knowledge and skill of the ancient depths, we'll overcome the challenges of Orientation Week and all the other terrains. The submarine spirit of the Dark Blue leaders will guide the way for you to turn the

tide and make this a fantastic week! So come and create some nautical nonsense with us. The ocean has called its wettest warriors... will you answer?



**CHRISTIAN, NATALIE, JULIA, BRIAN, MICHAEL**  
LIGHT PURPLE HUGES

Welcome to the light purple team, lavender fields! Our beautiful rolling fields

## LIGHT PURPLE - Lavender Fields

and calming smell lure the other teams into a false scents of security. No other team can compare to our flower power! Working together we'll triumph in challenges of collaboration and engineering skill, and leave the other teams behind.

Your leaders can't wait to meet you, so let's put the petal to the metal, and have an amazing O-Week!



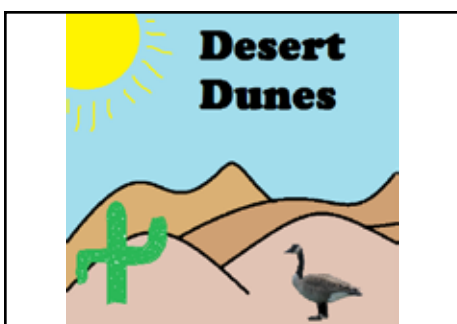
**GURVEER, CHRISTOPHER, JULIANNA, ANNIE, CASSI-ANN, MONIKA**  
DARK PURPLE HUGES

“Beautiful, swirling, shimmering waves, is quite characteristic of

## DARK PURPLE - Crystal Caves

the crystal caves. As you enter, you'll feel the pull of the cavern draw you in. You'll revel in the delicate crystal formations and lose yourself in the placidity of the tranquil azure waters. You'll find a hidden strength in a group of leaders, vying to entice you to

feel the hope and excitement that accompanies the beauty of the unknown. So come into our crystals, we'll have lot's of fun for days, please be sure to scream and shout, because that's what we're all about. “



**ROXANE, SAM, ANDREW, BRANDON, NOAH, BRENNAN**  
LIGHT BROWN HUGES

From Mad Max to Avatar: the Last Airbender, the desert is a fearsome

## LIGHT BROWN - Desert Dunes

landscape. Your leaders will guide you through Orientation week where you will prove that we are Hot, Vast, and pose a major threat to anyone who thinks they can cross us. Much like crossing the sandy landscapes of the sahara you

will need water, team work, friends, and a strong will (maybe leave the camel at home). Just don't drink the cactus juice.



**ALISON, ANGELA, HASAN, NOAH, RENO, YUN-HA**  
DARK BROWN HUGES

The vast peaks await our ascent. We've made our mark on this Earth

## DARK BROWN - Highland Mountains

as the peak terrain, destined to take over this year's Orientation Week. As highland mountains, we never rest till we reach the Everest. When times get tough, we keep our spirits high, and our altitudes higher. With the help of your

fellow first years, Bigs, and Huges, conquering the mountains becomes a much easier task. No mountain is high enough for us to scale. Once the summit is reached, that's how we know we've won O-Week.



**JESSEN, NICOLE, ELIZABETH, BRIANNA, SIMON**  
LIGHT PINK HUGES

Barren, lifeless expanses baked by the sun, we've proven ourself to be well-

## LIGHT PINK - Salt Lakes

seasoned warriors. Our salty lakes will keep your spirits afloat, and when we're here, we're here for good. With the right attitude, our week will be full of Ya+'s and not Na+'s. When Light Pink shows up, the competition will flounder

like the Dead Sea. Come prepared with teamwork and friendship, so we can make ionic bonds (they're strong!). Remember to stay hydrated; after all, it's not our fault, it's the salt!



**RACHELYN, NOSHERWAN, ALEX, ALAN, MICHELLE**  
DARK PINK HUGES

If you breathe air, you should probably thank the coral reefs. As one of the most diverse ecosystems on the planet, we also supply about 50% of the world's

## DARK PINK - Coral Reef

oxygen with our symbiotic relationship with algae. Despite popular beliefs, we are actually a polyp (not a plant) closely related to the jelly fish, so we may look friendly, but if you try to hurt us we will sting you. Much like coral reefs that have existed for thousands of years in the wild,

our Bigs and Huges have seen it all, and are ready to pass on our knowledge and support to the incoming first years, whether you're looking for advice on how to earn your hard hat, or stay afloat during the upcoming 5 years of school.

# Orientation Week Event Schedule

Engineering Students' Schedule for On-Campus Residence. Software schedule varies

**3**  
MONDAY

**4**  
TUESDAY

**5**  
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 2.



**WELCOME**  
\* Also on Sunday September 2.



**HQ TIME**  
Colour Group Headquarters

**MEET THE TEAM**  
Colour Group Headquarters

**FACULTY WELCOME / DEPARTMENT HANGOUTS**

Various Locations



**DEPARTMENT LUNCHES**  
Various Locations

**EARN YOUR HARDHAT**  
Various Locations



**SINGLE & SEXY / BLACK VS GOLD**

Physical Activities Complex/Vari-ous Locations

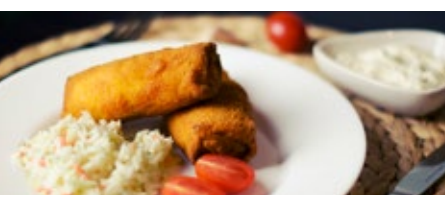
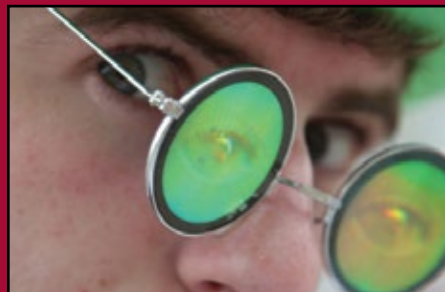


**AERIAL PHOTO**  
B.C. Matthews Hall Green

**JUNKYARD WARS**  
Village 1 Green



**WAYFINDING**  
Various Locations



**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

**6**  
**THURSDAY**

**CLASSES**  
Various Locations



**STUDENT TEAMS SHOWCASE**  
E5 Sedra Design Centre

**CHOOSE YOUR OWN ADVENTURE**  
Student Life Centre/  
Physical Activities Complex



**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!

**7**  
**FRIDAY**

**CLASSES**  
Various Locations




**SCUNT**

**CONCERT**

**8**  
**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

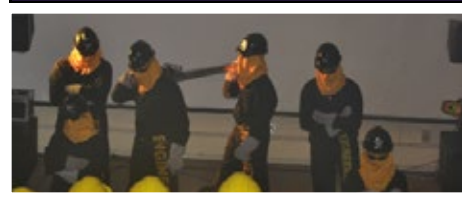
**9**  
**SUNDAY**



**BEGINNING OF TERM PARTY**  
POETS Patio / Carl Pollock Hall



**SCAVENGER HUNT**  
Engineering Quad/Various



# Welcome to First Year Engineering

## 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 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 E2 1772, or by calling 519-888-4761 during normal working hours.

### Be Professional

Engineering, like many programs—such as, medicine, law, and accounting—are called professional programs. The reason is that the work done by these professionals can, and does, affect the lives of 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.

## Engineering Exchanges

### Where the world becomes your classroom!

**PROF. RICHARD CULHAM,**  
**CINDY HOWE**

ASSOCIATE DEAN, INTERNATIONAL;  
ADMINISTRATIVE COORDINATOR,  
ENGINEERING EXCHANGES

Welcome, class of 2023, to Waterloo Engineering!

The engineer of the future will need to be a truly global engineer, where geographical boundaries will be of relatively minor importance while communicating and working with engineers of all nationalities will be essential. An international exchange could be your first step along this path!

### What is an International Exchange?

An international exchange is a program that allows students to spend one or two academic terms at one of our partner universities while earning credits toward their Waterloo degree.

International Exchange is available to all undergraduate students that maintain an overall grade point average of 70% or higher and typically takes place in your 3A or 3B academic terms (or both!!). Normally, you will lose no time on exchange and will graduate with your class.

### Why Should You Start Thinking About it in 1A?

It's a great opportunity that should be high on your list of things to plan for, but it needs preparation, organization, and forethought. You could be among the 15% of your class who goes on this amazing adventure and learning experience.

### What Are Some Benefits of Exchange?

If you've lived most of your life in one country in one culture, exchange will truly be an eye-opening and life-changing experience for you. It can open your eyes to the outlook, traditions and culture of your host country. You'll meet other exchange students from all over the world and make life-long friends and contacts.

The Faculty of Engineering has exchange partnerships with over 80 top-tier universities in about 30 countries. You'll need to decide which best suits your needs: most of our exchanges are restricted in numbers, some are open only to certain disciplines of engineering, and for some you need to learn (or refresh) your language skills if the language of instruction is not English. In some of our exchanges it's easiest to go for a one-term exchange, while for others two terms, or even a full year including a work term may provide a better fit.

All this is a part of planning for your future which could take you anywhere in the world!

To get started, visit our website (search for "Engineering Exchanges" at the UW home page) for all information, instructions, and forms you'll need. If you are on Facebook, look for the "UW Engineering Exchanges" group, which is specifically for outbound students and for those who have been on exchange, and is moderated by the Engineering Society (EngSoc) and the Faculty Exchange Office.

Also be sure to contact Cindy Howe in the Faculty Exchange Office (Carl Pollock Hall, Room 3658), [eng.ug.exchange.askus@uwaterloo.ca](mailto:eng.ug.exchange.askus@uwaterloo.ca).

Don't let this chance pass you by! You will need more than a year of lead-time after completing the application process before you can go on exchange.

### What about tuition fees?

You will pay your regular Waterloo tuition fees to Waterloo.

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

*"Going on exchange is the BEST decision I've made in my undergrad life! It has helped me grow as a person from learning in a new environment, making friends around the world, and seeing things in different perspectives. Not to mention all the amazing travels you can do on an exchange."* - LinLin Chen, Management Engineering

*"In my opinion no classroom is ever an ample substitute for the experiences of the real world and nothing provides the individual more perspective than the opportunity to travel abroad. As our global world seeks to address the pressing challenges of our age, such perspective is becoming invaluable."* - Matthew Benson, Civil Engineering

[writing of a camping experience while on exchange in Chile] *"A little village of tents beneath the mountains. I'd never gone hiking in such a busy place, but I loved the supertime gatherings around propane stoves, passing spices round to other travelers, trading stories."* - Tessa Alexanian, Systems Design Engineering



# The History of Orientation Week at UWaterloo

**ROSS RICUPERO**  
CIVIL 2009

The oldest recorded discussion of Orientation Week at the University of Waterloo is from the October 13, 1961 edition of *The Coryphaeus*, the University of Waterloo's first student newspaper. It's a simple article that welcomes freshman engineers to the school and the Engineering Society. It also gives thanks to Dave Smith, chairman of the Initiation Committee (Orientation used to be called initiation) and announces the Initiation Dance as part of WA-WA-WEE '61 (The old name of Warrior Weekends, an event that ran up to 2011).

The September 27, 1963 edition of *The Coryphaeus* gives even more details on "initiation" with an article discussing the school-wide scavenger hunt (apparently they acquired things like wagons, tractors, hay bales, snow fences and pictures of someone named Brigitte Bardot), a game to measure the length of a city block with hotdogs, a challenge to make a line of pennies stretching from Kitchener City Hall to Waterloo City Hall (which is apparently approximately 140,000 pennies), the (seemingly) annual 'Froshman Hop' dance, and some unknown event called the 'Hootenanny'. Each faculty organized their own Initiation program and worked with the Orientation Committee, which ensured the individual programs worked across the school.

In '64, '65, and '66 even more traditions had started to form. First year students from Arts, Science, and Engineering (the only faculties at UW at the time) were all awarded 'beanies' or caps at the beginning of (the now called) Orientation and the cheer of "I'm a dirty rotten dead horse and I stink!" was used throughout the week, accompanied by students falling to the ground, laying on their back and sticking their arms and legs in the air. The Frosh Queen competition, in which 'Freshettes', or female first-year students, competed to be elected to the position complete with sash and crown, became a major event. The penny-drive also became Slave Day, where first-year students would be sold to members of the community to help them with whatever they choose, or for charity purposes.

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



continued the method of each society running their initiation programs, and the Orientation Committee overseeing the entire thing.

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

It was during the late 1960s that the bulk of Orientation Week was moved to the control of the Federation of Students (FEDS). While the student societies still planned and ran programming for their specific faculty, many of the larger events would be planned by FEDS. It's from this point throughout the 1970s that FEDS took the Orientation Week of the 1960s and made it into a month long Orientation program with varied social or educational events each day from the start of September to the end. This included many high-profile concerts such as Meatloaf, Gordon Lightfoot, and Ike and Tina Turner, as well as speeches from major political figures, cabinet ministers, MPPs, and radical leaders.

While the much expanded programming offered more choices for incoming students, it was during this time that student apathy and low attendance began to take its toll. Concerts lost money (the Ike and Tina Turner concert lost \$6,000 in 1972, which is over \$30,000 today accounting for inflation), speeches went unattended, and acts cancelled or simply didn't show. Reviews of the

Orientation program varied wildly from condemnation to enthusiastic.

It was during this time that the Engineering Orientation program moved away from the Slave Day charity and began running the Bus Push charity (which has continued annually since then in the Winter term). 1969 also saw the Engineering Stag event of Orientation Week, which was little more than a drunken strip-tease for first-year students.

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

Then began the dark years (or the years where written records become spotty). It's expected that Orientation Week continued this way for the 1980s and early 1990s. Student societies continued running programming for their faculties, and the Federation of Students continued running the overall program. It was during an unknown Orientation Week during the 1980s that the Education Committee was founded, and that the engineering hardhats became a major symbol. These have stayed as key components of Engineering Orientation Week since then. The oldest record of the Education Committee is an Orientation Week video from 1988 and

hardhats could be over a decade older than that.

At the end of the dark years, Engineering Orientation Week was a tight, multi-day program packed with events. Incoming students would go through a program similar to the program we have now, but that had very distinct differences. In 1993 a UW Orientation Manual was produced and distributed to the groups running the faculty programming and soon after a major part of Orientation Week today was founded; the Federation Orientation Committee (FOC). The goal with FOC was to have better collaboration between the independent groups running various Orientation Week programming and the Federation of Students, allowing a more efficient Orientation Week overall. This started the process of Orientation Week becoming more regulated and controlled, something that would take the unorganized month-long Orientation programs of the late '70s and '80s, to the smaller, week-long programs of the '90s. By 1996, a schedule that resembles the modern day Engineering Orientation Week began to emerge: Aerial photos were taken (these can all be seen in the POETS lounge), they earned their hardhats, and they all met the Dean. However, they also competed in chariot races, paraded through town, and had organized off-campus parties—events long since banned or modified.

**Continued on page 18**



# 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 the City of Cambridge. The refurbished Riverside Silk Mill will soon become your home sweet home.

In your first year you'll be tossed into a whirlwind of learning, challenging you to develop knowledge in architectural design,

## ELLE CLARKE ARCH. ENG ADMIN COORDINATOR

Welcome to the University of Waterloo's newest undergraduate program! ArchE is an exceptional program, combining science-driven, analytical components with a healthy dash of creativity. During your years at UW you will learn the whole scope of building design, construction, assessment and refurbishment whilst also engaging in hands-on architectural design in your brand-new studio space.

## JAN LAU BIOMEDICAL 2020

Congratulations Class of 2023, 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 2023! 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 CIVIL 2021

Hey! Welcome to Civil Engineering at the University of Waterloo. Most of you are probably very anxious about academics, making friends, and maybe moving to a different city. 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,

## THOMAS DEDINSKY COMPUTER 2021

Congratulations, class of 2023! 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. Waterloo can give you a mentality that makes you compare yourself to each of your colleagues and feel insignificant, but don't forget that you deserve to be here.

## AUSTIN COUSINEAU ELECTRICAL 2015

Welcome to the University of Waterloo, and congratulations on choosing Electrical Engineering! You have an exciting path ahead of you. You will be taking a wide variety of courses ranging from circuits, programming, math,

## 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

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, including Waterloo

University life is a learning curve and it can seem overly steep during your first year. Your marks will probably go down; you will have to study more; and you might not be the smartest kid in your class anymore – but it's ok! That's why you will feel such an amazing sense of accomplishment when you graduate as a unique and forward-thinking architectural engineer.

As a student in a newly-minted program, you have the power and responsibility of forging the path for those who come after you. Take advantage of the wealth of resources available to you.

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—

making way for new feelings of pleasure, curiosity, and delight.

Civil is not limited to structures or construction; 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 specifi-

Over the next few years, you'll get a chance to explore the problems Computer Engineers face with digital hardware, software, and circuits, and learn how to tackle them. Put a good amount of effort into your courses and you will succeed, but don't be afraid to enjoy yourself and get involved in intramurals and clubs. If you are having trouble finding the right school-life balance, or with some other issue, there are plenty of resources on campus like TAs, the Engineering Society, and the First Year Office that

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 take advantage of the resume critiques run by our lovely Engineering Society. You are sure to encounter some tough times as

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

Architecture Students Association (WASA), BRIDGE, F\_RMLAB Build, coffee houses, yoga mornings, hockey evenings and much more. We join our Engineering friends for Archengineering events and Of Term Parties.

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!

Never be afraid to ask for help from your peers, TAs, professors and staff. They are here to support you and are an invaluable resource. Lastly, don't forget to have fun! Keep up your extracurricular activities, or get involved in new ones. There are many student groups, intramural teams and clubs on campus, so take this amazing opportunity to engage and network with people from all over the globe.

We are so excited to welcome you to ArchE and hope you have some of the best years of your life at UW!

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!

cally 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.
- Exploit your resources – TAs, peer groups, and professors, 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.

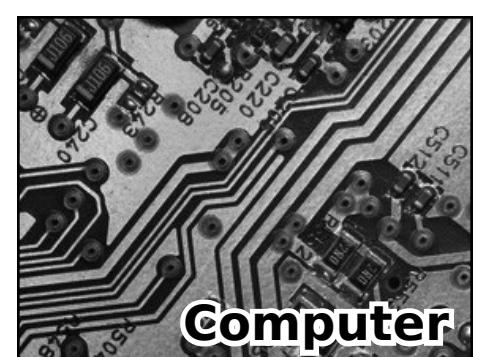
can help you.

Finally, some of you are going to be introduced to co-op in the next few weeks. It's going to be daunting, but I would strongly encourage you to 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!

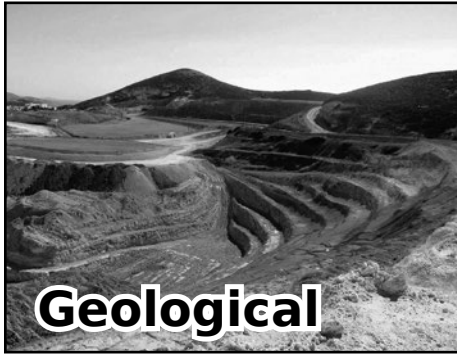
you adjust to the new world that is university. Everyone will, so don't be afraid to reach out for help when you need it. Take advantage of your TAs, professors, advisors and classmates – you're all in this together. And don't forget that university is a social place as well. Make time to go the various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

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, 2023!



# Engineering Programs at Waterloo



## GABRIELLE KLEMT GEOLOGICAL 2020

Hello future Geological Engineering graduates! You may be wondering as you read this, as I did a few 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). 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 MANAGEMENT 2019

Hello class of 2023, 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!



## SIMON GRIGG MECHANICAL 2019

Welcome Mechanical 2023 friends. You're on your way to learning a vast array of industrial relevant topics and skills (or you're a character from Shakespeare's Midsummer Night's Dream that performs Pyramus and Thisbe). In your first year, you'll cover a pretty general set of courses including calculus, physics, and materials which you'll

get to apply to the world around you as you move through your degree. You'll also have a chance to learn some design principles, AutoCAD and SolidWorks (I pretty much copied this section from the last person to write this blurb - remember: cite your sources!). You'll soon discover the wealth of opportunities in Mechanical Engineering as you try out the many different fields of work available to you through the Co-op program, whether it's automotive, materials,

or building systems (I straight up stole most of this sentence from the last blurb too). School will be absorbing, but don't neglect to get involved. There are lots of opportunities around from design teams to the Engineering Society, to WEEF, and many more (honestly, just see if you can get a copy of the old blurb - not much has changed, except that Leila is not "always around" because she graduated two years ago). All the best as you start this new chapter of your life!



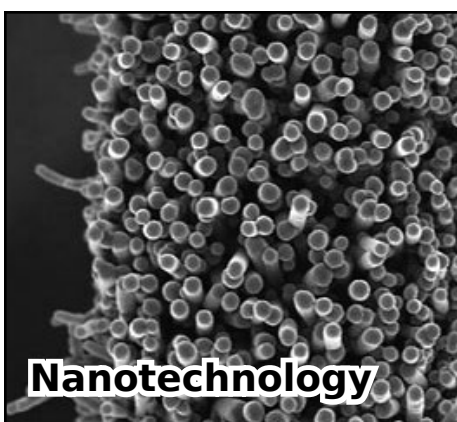
## AWN DUQOUM MECHATRONICS 2019

"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 2023. 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.

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](mailto:ness@uwaterloo.ca).



## JOSHUA KALPIN SOFTWARE 2016

Welcome to the land of Software Engineering (SE), 2023 Softies. You'll learn quickly that being called a Softie is actually an awesome thing, because we aren't soft at all. SE 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 SE you'll learn everything about how

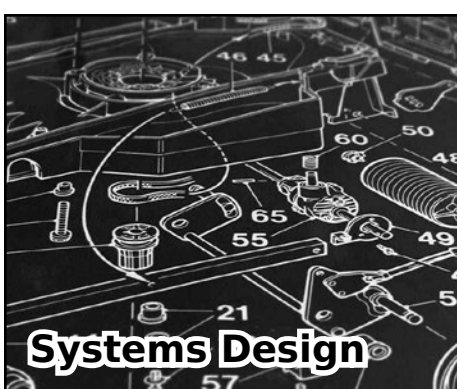
computers and the software that runs on them works. This ranges from the design and implementation of complex software systems to the physics and circuits that explain how computers function.

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 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.

Since SE is a stream 8 program, you have time 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; WaterlooWorks, the school's job application service has a ton of job postings.

Lastly, don't be a stranger! SE resources are all on the second floor of the Davis Centre (DC), including the labs, lounge and administrative offices. Best of luck!



## RENO NATALIZIO SYSTEMS DESIGN 2021

"What is Systems Design Engineering (SYDE)?" is a question that everyone from your friends to employers will ask. SYDE is a unique interdisciplinary program, giving you the skills to work on complex problems with engineers of many fields. Your design courses, electives, and extracurriculars will help define what Systems means to you.

But for us, there is a simpler meaning. To

misquote my favourite movie, "SYDE means family, and family means nobody gets left behind or forgotten." Whether that means ice cream socials, or spending countless hours on the sixth floor of E5, your classmates will be like family to you. Take a quick look around your class, and you will find some of the most diverse and well-rounded students from across the globe. Be there for each other - you're all going to change the world together.

Of course when it comes to co-op and beyond, the job opportunities reflect the flex-

ibility of our program. You can find a SYDE working on technical details or managing a project's design, leading a startup or conducting research - the world is your oyster. Take risks, tackle important problems, ask difficult questions, and dig for answers.

Along the way, make sure you care for yourself and build a solid support network. It can be hard and you will be challenged over the next five years, but the journey will be like no other. Welcome to the family, and welcome home.

# 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 over thirty 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 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



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

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 6. Be sure to stop by to visit with the teams and get more information.

## WATERLOO ROCKETRY TEAM

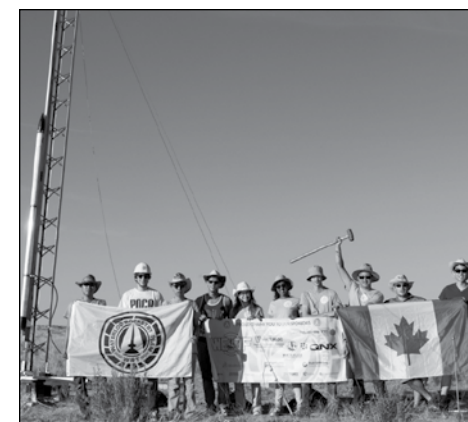
Waterloo Rocketry focuses on research, design, manufacturing, and testing of student-developed rockets and ground systems. We develop every aspect of our rocket, including our airframe and avionics, as well as all of our ground equipment, such as our launch tower and launch control system. Our team competes every year at the Spaceport America Cup against

more than 100 teams from around the world, where we're one of the few teams to successfully develop our own hybrid rocket engine.

We're one of UW's smaller design teams, with about 20 members, but that hasn't stopped us from being successful - we've taken home 1st Place in our category two years in a row, most recently with a launch that reached 13,412 ft above ground. This year, we're aiming even higher and shooting for 30,000 ft with an

upgraded engine, lighter structures, and more sophisticated electronics.

Our work involves every engineering discipline, and first years are more than welcome to jump in without any experience required. We always have more projects than people with time to work on them, so if you're enthusiastic and ready to learn literal rocket science, we'd love to have you on board! Check out our website ([waterlorocketry.com](http://waterlorocketry.com)) or drop by our workbay (E5 1008) to learn more.



## LYNDIA STACEY

WIE OUTREACH SQUAD

Why join the Squad?

§ Share your passion for engineering with fellow students!

§ Welcome new students and applicants to the University of Waterloo!

§ Inspire the next generation of female

engineers!

The members of the WiE Outreach Squad are committed to helping out at all major outreach events during a specific term. Members of the WiE Outreach Squad are selected by application.

These amazing volunteers are expected to volunteer about three-four Saturdays over the course of the term.

There will be a planning meeting prior to each event..

Squad members will receive some sweet apparel and targeted training.

This is an excellent opportunity for students who want to develop their soft skills such as facilitation, presentation, event planning and program delivery.



## Midnight Sun

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](http://www.uwmidsun.com).



## University of Waterloo Baja SAE

### BAJA

The University of Waterloo Baja SAE team is an undergraduate student design team that builds an off-road buggy every year to com-

pete in Baja SAE competitions. This year we are designing and constructing a completely new vehicle from the ground up. With this new car, we're looking to drastically improve our performance at the competition in 2019. If you are interested in learning some techni-

cal skills relevant to your co-op job search then be sure to get involved with the Baja team. You can find us at the student teams' showcase in early September or visit us at [uwbaja.ca](http://uwbaja.ca).



## 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.

## Waterloo Formula Electric

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](http://waterlooformulaelectric.com).





## UW Autonomous Sailboat Team



### UW SAILBOT

The UW Autonomous Sailboat Team, or UW Sailbot, designs, builds, and programs autonomous wind-powered vessels to compete in the International Robotic Sailing Regatta. A young team led by a tight-knit core of 10 members,

there's plenty of growth for the ambitious crew. Members from over 7 programs complement each other as they construct carbon fibre racing boats and the array of software that powers it. In 2018, the team competed at the IRSR in Worcester, Massachusetts and placed 4th overall, with 2nd in collision avoidance, 2nd in presentation, and 3rd in endur-

ance. With all eyes on IRSR 2019, the team aims to focus on increasing autonomy and speed. New members excited about advanced composite materials, naval architecture, autonomous navigation, and electronic board design are encouraged to join!

## Waterloo Alternative Fuels Team



### UWAF

WatSat is the University of Waterloo's teaUWAF - The University of Waterloo Alternative Fuels Team (UWAF) has been a leader in advanced sustainable vehicle technology development, education, and awareness for over 20 years. UWAF works with a variety of

automotive technologies and marries various disciplines of engineering, including but not limited to; mechanical, electrical, controls, modelling, simulation, software, firmware, communications outreach, project management and manufacturing. UWAF is always looking for exceptional engineering students to develop, test, and implement critical mechanical, electrical, controls,

and software systems on hybrid electric vehicle as part of UWAF's mission to develop smart Connected, Automated and High-Performance vehicles while lowering pollutant emissions associated with conventional internal combustion engines.

## Warrior Home Design Team



### WARRIOR HOME DESIGN TEAM

Warrior Home is a student design team that designs affordable, energy efficient homes in partnership with Habitat for Humanity (HFH) by applying concepts of building science, architecture and building systems. The team competes in the annual Race-to-Zero Design Competition hosted by the US Department of Energy, to present a new house design every year. Warrior Home placed first in the At-

tached Housing Category at the 2018 Competition, and it was only our first year competing! We are partnered with the University of Waterloo Habitat for Humanity Campus Chapter, who fundraise and organize Habitat for Humanity build days and fun on campus activities to advocate for HFH. Our design team is made up of 50 passionate individuals from 10 different disciplines who are working towards designing and building affordable, durable and practical energy efficient homes for the future. Our team along with the Campus Chapter, volunteers on Habitat for

Humanity build sites locally, which offers our students the opportunity to gain hands on construction experience and insight towards how a home is built. Our team members receive mentorship and an unparalleled learning opportunity of applying real world engineering knowledge and concepts before even entering their first few coop terms or learning it in class. Everyone is welcome to join! Send an email to [warriorhome@uofwhabitat.ca](mailto:warriorhome@uofwhabitat.ca) if you are interested in joining us!

## 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 consists of students across the University building robots to compete at international competitions. UWRT's biggest project is the Mars Rover, an ROV designed to complete an array of tasks

in a simulated Mars environment. Students on this project compete annually at the International University Rover Challenge hosted by the Mars Desert Research Station in Hanksville, Utah. UWRT also hosts the International Autonomous Robot Racing Challenge every year, where teams from all over Canada, USA, Asia, and Europe come to show and race 1/10th scale autonomous vehicles. UWRT includes Undergradu-

ate and Graduate students from across the University, with represented Faculties including Engineering, Science, Mathematics, and Arts. Typical tasks include robotic design, software development, soil science, business development, and marketing. No matter what you are interested in, UWRT will have an opportunity for you! Feel free to stop by our home in E5 2003.

## Waterloo IISE



### IISE

UWaterloo IISE is the University of Waterloo's Institute of Industrial and Systems Engineers Chapter. Our organization aims to provide knowledge, training, and networking opportunities that inspire students

to become technically and socially competent Management and Systems Engineers. Specifically, our chapter strives to provide avenues for growth academically, professionally, and socially through unique events and services.

The Chapter was formed in 2012 by an inspired group of Management Engineering

students and is a way for students to come together in the pursuit of gaining a deeper understanding of the discipline. Further, the chapter seeks to educate others about Management, Industrial, and Systems Engineering to network with professional Engineers, and to learn from other Industrial & Systems Engineering institutions.

## Other Design Teams in the SDC

Biomechanics Team

Concrete Racing Team (Toboggan & Canoe)

Industry 4.0 Tream

International Genetically Engineered Machine

UW Blueprint

UW Steel Bridge Design Team

UW Institute of Industrial and Systems Engineers

Waterloo Aerial Robotics Group (WARG)

Waterloo Satellite Team

Waterloo Submarine Racing Team

Waterloo Supermileage

WATonomous

## OWeek History at UWaterloo

Continued from page 13

It was during 1997 and 1998 that a new program started to address major concerns highlighted in an Orientation Student Survey conducted in 1994 and 1995. This survey concluded that there was a dangerous undercurrent of behavior across all Orientation programs. From discriminatory chanting to exclusive programming and a dependence on drinking, it was seen that there was a fundamental problem with Orientation Week; the leaders themselves. There was no formalized Orientation Leader training program for leaders to go through, and there were few checks and balances on the actions of these leaders too.

People simply ran Orientation Week like it had been run for the year they went through it and every year before that.

It was because of this that the Provost's Advisory Committee on Orientation (PACO) was founded, and PACO training was implemented in 1998. This training, mandatory for all Orientation leaders, covered things like drinking and drugs, inclusivity, and non-discrimination. While some students cried out that this was gutting the Orientation Week they knew and

loved, it ultimately led to the modern Orientation Week we have now, which many believe to be better than ever before.

With the double cohort of 2003, a large percentage of students were now entering university at age 18; younger than the legal drinking age. This became a problem as many planned events during Orientation Week were 'wet' events where alcohol was served. A controlled environment was implemented, with 'beer gardens' allowed at certain events and each organizing group allowed to have a single 'wet' event for their faculty or residence.

By 2004, PACO was dissolved and we were left with Orientation Leader Training, the modern version of PACO leader training. 2004 was also the last year that Orientation Week officially included alcohol with a beer garden at the Saturday night Toga party. Once Orientation Week 2004 closed, alcohol wouldn't be part of the week again.

In 2016, Orientation Week is over 50 years old, involves over 8,000 first-year students, 1,000 upper year students, has a budget in the hundreds of thousands, and the support of countless sponsors and contributors. While it may be completely different from the Initiation of 1961, Orientation Week 2016 has

built upon the past decades; all of the conflicts and problems, changes, successes, and failures have been rolled into the week.

While it may not be perfect, it is a continuation of a tradition started soon after the University of Waterloo

was founded, and it represents the unconventional history and future of this school.

*(Editor's note: Some minor modifications made to the original article by Ross to keep the article current.)*

[www.sosphysiotherapy.ca](http://www.sosphysiotherapy.ca)  
campus@sosphysiotherapy.ca



**UW CAMPUS SLC**  
**REGISTERED MASSAGE THERAPY**

- Soft Tissue Manipulation
- Stress Management



**REGISTERED PHYSIOTHERAPY**

- Consistent, innovative, professional treatment
- Personalized exercise prescription
- Manual therapy and Electrotherapy
- Core strengthening
- Acupuncture

**Physiotherapy, Massage Therapy and Custom Foot Orthotics  
Coverage Available under the Feds Health Plan**

**University of Waterloo Student Life Centre**  
(Lower Floor) 200 Univeristy Avenue West, Waterloo, ON N2L 3G1  
Tel: 519.884.0767 | Fax: 519.884.9161



This sculpture, found outside CPH foyer, mysteriously changes colour throughout the year.



## Awards, Grants, and Scholarships Available

**APPLY!**  
for up to  
**\$2,000**



**The Sandford Fleming Foundation**

- Professionalism
- Leadership
- Communication
- Design
- Innovation
- Engineering

**An organization devoted to the advancement of engineering education.**

### SFF Memorial Junior Leadership Award

For intermediate-level undergraduate students who have demonstrated outstanding contributions to the Faculty in the promotion of extra-curricular activities.

### Fisher and Duxbury Leadership Awards

For graduating students who have shown outstanding leadership throughout their undergraduate career in activities that relate to engineering education.

### Undergraduate Travel Grants

For: Conference Presentations, Conference Registrations, Technical Projects, Academic Professional Conferences.

### Dr. F. Hecker and SFF Student Exchange Scholarships

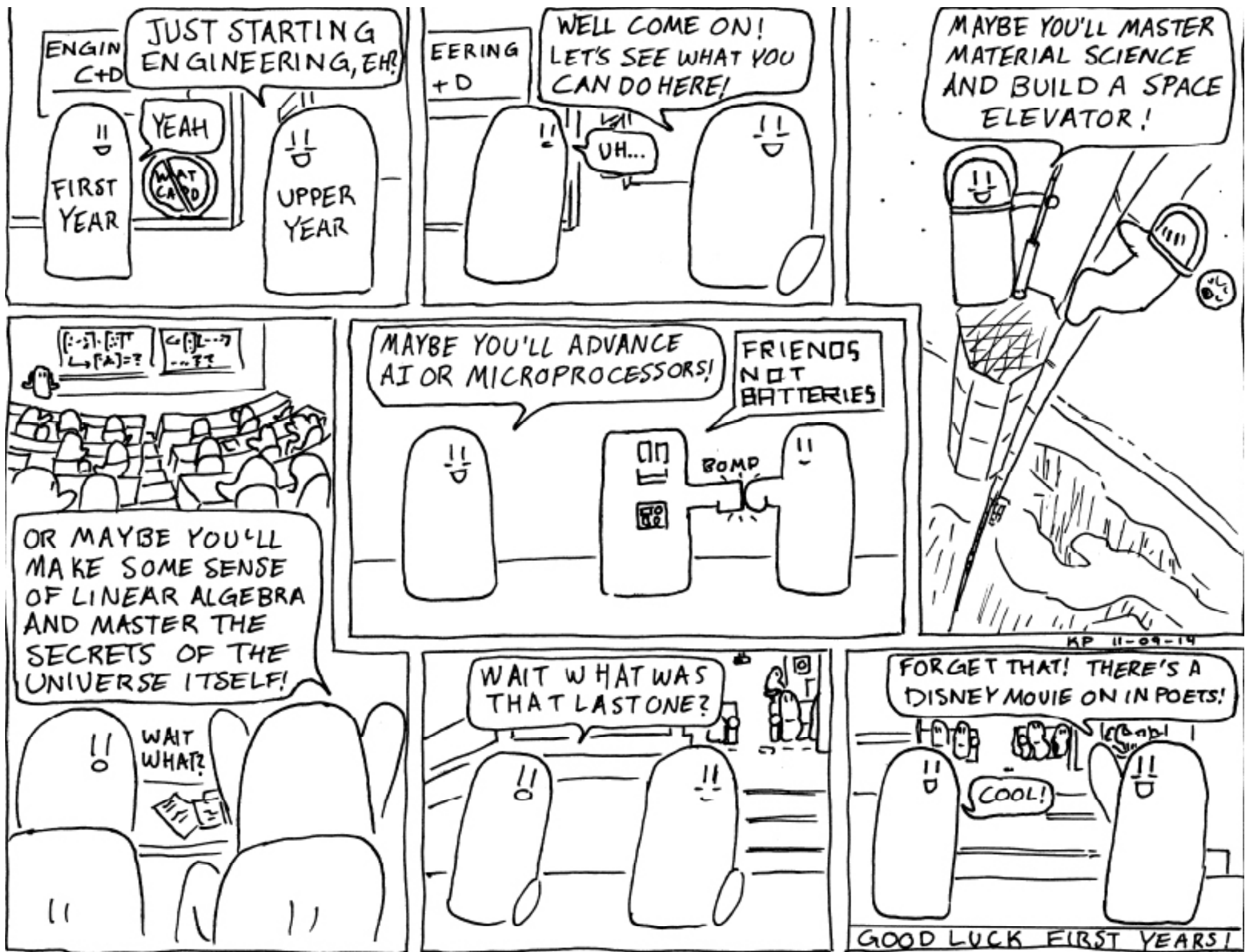
For undergraduates participating in a Faculty student exchange program globally.

For more awards, information, and how to apply:

[sff@uwaterloo.ca](mailto:sff@uwaterloo.ca)  
[www.eng.uwaterloo.ca/~sff](http://www.eng.uwaterloo.ca/~sff)

UNIVERSITY OF  
**WATERLOO**

KYLE POHL  
MECHANICAL 2014



## Something To Look Forward To

CAMERON SOLTYS  
MECHANICAL 2018



# THE IRON WARRIOR

# The Iron Crossword

## Terrain Takeover

**SAMRIDHI SHARMA**  
3A CHEMICAL

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		

**ACROSS**

- 1: A small rug
- 4: To arrange things in order
- 9: Shoal at the mouth of a harbor, bay, or estuary
- 12: Freddy \_\_\_\_, Las Vegas Lights FC soccer player
- 13: Broad volcanic craters, usually filled with water to form a lake
- 14: Suffix meaning "little one"
- 15: Personification of the sea, AKA Ler
- 16: A person who works in advertising
- 17: Wild animals are kept here in captivity
- 18: Long and time consuming
- 21: Soda water
- 24: Move by turning on an axis
- 25: \_\_\_\_ away; to drive away by waving hands
- 26: A cup shaped flower
- 29: Leonard Nimoy was the original one in Star Trek
- 33: Son of Drogo Baggins
- 34: In good order or condition
- 35: Bill Gates' alias at MicroSoft

- 36: National League's Most Valuable Player (abbr)
- 37: Broadcast again
- 38: Music home of Ryan Stevenson and Aaron Cole
- 39: Scottish for no, or not
- 41: Limb on which humans walk
- 42: A genre of Italian film featuring historical or biblical epics
- 44: Solitary form of a coelenterate such as a sea anemone
- 46: Used to refer to the whole quantity of a particular group
- 48: Male possessive pronoun
- 49: An intentionally false statement
- 50: Library Association of Alberta (abbr)
- 53: Homeowner association (abbr)
- 54: People who communicate loudly
- 56: An industry standard that establishes specifications for cables
- 57: A leading provider of Private WAN in Canada; a Centrilogic company
- 58: Military slang for lieutenant
- 59: Marketing term meaning call to action (abbr)

- 60: Smallest unit of data in a computer
- 61: Jason Mraz song: \_\_\_\_ Give Up
- 62: Coloured varieties of Common Carp

**DOWN**

- 1: A large building containing variety of retail stores
- 2: \_\_\_\_ Syndrome causes dilated pupil that reacts slowly to light
- 3: A change of direction when moving
- 4: \_\_\_\_ and the Night Visitors, an opera by Gian Carlo Menotti
- 5: 1965 Comedy film based on the novel by Romain Gary
- 6: The correct syntax for "Me is"
- 7: Short, narrow-leaved plants that make lawns green
- 8: \_\_\_\_ Cherry, a Swedish singer, songwriter, rapper etc.
- 9: Make a humming sound
- 10: Century plant, American \_\_\_\_
- 11: Verb meaning "I reckon, calculate."
- 19: Horizontal or vertical line that divides a map into squares
- 20: The arrangement of the natural and artificial physical features of an area
- 22: Hollywood is located here
- 23: The study of geometric properties and spatial relations
- 26: Technical Feedback Report (abbr)
- 27: \_\_\_\_ Bronfenbrenner, Russian-born American psychologist
- 28: Song by The Kinks in the album "Per-cy"
- 30: Otakar Kraus Music Trust (abbr)
- 31: Grotto
- 32: A hook-like secondary sex characteristic which develops in some male salmonids
- 40: Opening words of Psalms 22:2
- 41: An 11.6-kilometre long river in France
- 42: A living organism exemplified by trees
- 43: 'It must have been \_\_\_\_ news day' (2 words)
- 44: Full, in French
- 45: Take hold of (something) and quickly remove it from its place
- 46: The seventh king of Israel since Jeroboam I
- 47: A trickster god associated with magic and fire in Norse mythology
- 51: Regarding (2 words)
- 52: Association for Behavior Analysis International (abbr)
- 55: A Brit's restroom

# Sudoku

## #2018-OW

**HASAN AHMED**  
2B NANOTECHNOLOGY

Easy

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

Medium

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

Hard

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

Solutions for previous crosswords can be found on *The Iron Warrior's* website at [iwarrior.uwaterloo.ca/distractions](http://iwarrior.uwaterloo.ca/distractions).

**THE IRON INQUISITION**  
Hasan Ahmed, 2B Nanotechnology

### "What Was Your Favourite Part of Orientation Week?"



*"Choose Your Own Adventure (Board Games) because I met some of my best friends in all of university there!"*  
Megan Town, 3A Chemical



*"Single and Sexy!"*  
Laura Scanlan, 2B Systems Design



*"Winning the Week!"*  
Gabrielle Klemt, 3A Geological



*"Getting helpful advice from upper years during department hangouts!"*  
Christopher Chalmers, 3A Computer



*"Getting up at 5AM to dye myself purple!"*  
Heather Cowan, 2B Mechanical



*"Smash Band!"*  
Hasan Ahmed, 2B Nanotechnology