2 UW students compete in world’s first autonomous race. P4
New UW environment program tackles climate change

As scientists continue to observe changes in the global climate, there has been a push for further research and education surrounding the prevention of climate change. To meet the growing need for educated leaders who can tackle the climate crisis, the University of Waterloo has announced a new program: the BSc in Climate and Environmental Change (CEC).

“The climate crisis has been consistently in the news in 2021 – in just this year in North America we’ve seen a freeze in Texas that shut down power grids, the West Coast went through its most devastating fire season yet, and BC went through extreme heat and now heartbreaking flooding,” said Richard Kelly, chair of the department of geography and environmental management. “There is an urgent need for programs that address both the science of climate and environmental change as well as the human dimensions of this. This program is designed to address this – what is happening? Why is it happening? What can we do about it, and how do we do this?”

The objective of the CEC program is to provide students with knowledge of the Earth’s climate system, an understanding of climate change from multiple perspectives and an appreciation of the implications of climate change for society. The CEC program will cover many topics related to the science behind environmental change, including biology, chemistry, physics, and earth science.

“Water and energy are key areas of focus – to understand how these resources will change under a warming climate and what the implications are for the physical landscape, human society, and the economy,” said Erin O’Connell, associate chair, undergraduate studies of the department of geography and environmental management. “The CEC program also focuses specifically on the climate and environmental science and solutions compared to other programs that often have a broader environmental focus.”

In addition to science, the program will also teach technical skills in computer modelling and spatial data analysis. This could prepare students for technology-driven careers in climate modelling and risk prediction.

“Climate change solutions require a fundamental understanding of the natural sciences coupled with technological and other innovations,” said Jean Andre, dean of the faculty of environment, in a UW news release. “Our department of geography is well positioned to tackle these problems since it is rooted in environmental science and has a strong applied component that draws on new and established technologies in geomatics.”

The first two years of the program will focus on providing foundational CEC knowledge, while the last two years will delve deeper into specific climate issues.

“By the third and fourth years students will be able to apply their CEC expertise to environmental problems such as management of natural wetland systems, climate modelling, river and lake systems monitoring, sea level risk assessment and adaptation,” Kelly said.

The new program will be housed in the faculty of environment within the department of geography and environmental management. It will be available with a co-op option, allowing students to gain relevant CEC experience through lab placements or fieldwork. O’Connell also mentioned that the last co-op term will be eight months, opening up potential opportunities for students to work in northern Canada where longer placements are often required.

Current students who are interested in majoring in CEC may apply to transfer. While joint degrees are not possible and there is no minor available in CEC, students across campus can do a geography minor and take key courses that will provide them with climate change knowledge.

UW signs Scarborough Charter on anti-Black racism and Black inclusion

The University of Waterloo has signed on to the Scarborough Charter alongside more than 40 other post-secondary institutions across Canada.

The charter is a sector-wide agreement designed to move post-secondary institutions toward more meaningful, concrete actions to address anti-Black racism and to promote Black inclusion. It is founded on four core principles that commit the charter’s partners to address systemic barriers and to champion equity, inclusion and diversity. These principles include Black flourishing, inclusive excellence, mutual and accountability, and each one includes a series of actions the post-secondary institutions can take to improve governance, approaches to research, teaching and learning, as well as community engagement.

Signed by UW president and vice-chancellor Vivek Goel during a virtual ceremony on Nov. 18, the charter follows through on commitments made by partner institutions at the October 2020 National Dialogues and Action for Inclusive Higher Education and Communities forum and provides a framework for delivering on these promises.

“By providing a unified framework for confronting Anti-Black racism within higher education institutions in Canada, the Scarborough Charter complements cross-campus anti-Black racism initiatives being developed and implemented at the University of Waterloo,” said Goel in a Waterloo News article.

“Through the Scarborough Charter, we are honouring our commitment to making unbiased choices and being anti-racist in all aspects of our lives,” Goel continued. “We are taking coordinated actions to dismantle systems that perpetuate racial discrimination and build a more inclusive and equitable society.”

UW’s signing of the Scarborough Charter follows its recent announcement of a cluster-hire initiative to appoint 10 Black tenure-track or tenured professors.

Some of the other initiatives implemented to help address racism include the recent appointment of equity strategist and anti-racism advisor Christopher Taylor as associate vice-president of the newly formed Equity Office. UW will also begin offering two Black studies diploma programs through the Faculty of Arts in fall 2022.

Both programs were developed by members of the Black Faculty Collective under the leadership of professor Vershawn Young.

“While Waterloo is making significant strides toward developing and maintaining a diverse, inclusive and equitable culture, we must continue to fast-track concrete, sustainable actions to combat anti-Black racism and advance inclusivity on our campuses,” Taylor said in the Waterloo News article.
Homelessness and affordable housing a growing concern in Waterloo

Nicola Rose
Managing Editor

Homelessness is a growing concern in Waterloo Region, as the number of people without access to stable permanent housing has tripled in three years. Across the region, reports estimate that around 1,085 people — an all-time high — are experiencing some form of homelessness.

With the cold winter months right around the corner, many shelters are looking for more options to support unhoused members of the community.

The House of Friendship, a local non-profit that provides housing services along with other support, recently announced that it has found a temporary solution to accommodate all shelter users by Dec. 1.

However, John Neufeld, the executive director of House of Friendship, explained that temporary housing supports are not a long term solution. "We can’t keep doing these short-term stop gaps — two months, six months, one year. It’s disruptive to the individuals we serve, it’s disruptive to the people that are serving in this field," he said.

One major factor contributing to the skyrocketing rate of homelessness is a widespread shortage of affordable housing. In Waterloo, much like the rest of the province, housing and rent prices are increasing rapidly.

According to the Canada Mortgage and Housing Company (CMHC), affordable housing should cost less than 30 per cent of pre-tax income. People paying above 30 per cent are considered core housing need, while those paying over 50 per cent are considered in severe need. People in the severe need category are at risk of homelessness.

A 2021 report from the Waterloo Undergraduate Students’ Association (WUSA) found that 70 per cent of student respondents spend more than a third of their monthly budget on housing costs, while more than 50 per cent spend more than half.

Some students are also experiencing homelessness. According to the report, an estimated four per cent (80,000 people) of post-secondary students in Canada experience homelessness. These students live on the streets, sleep in their vehicles or couch-surf with friends — a situation typically referred to as “hidden homelessness.”

In emergency situations, students are also accessing shelter supports, many of which are facing additional strain as a result of the COVID-19 pandemic. Wendi Campbell, the chief executive officer at The Food Bank of Waterloo Region noted that as government funds begin to dry up and housing costs continue to rise, the demand for their services is rising fast.

As a result, some organizations, like the Cambridge Shelter Corporation, are preparing for an increase in users over the coming months. They are asking the public for support in the form of clothing donations, especially items like socks, hats and blankets, which provide important protection from the cold.

Additionally, many temporary shelter leases implemented during the COVID-19 pandemic are coming to an end. Homeless encampments, such as one that has been set up at the corner of Stirling Avenue and Charles Street in Kitchener, are expected to become more common. “That’s why we need to move from temporary solutions to more permanent, longer term solutions,” Neufeld said.

However, longer term solutions are not always available to certain groups that need them. The WUSA housing report notes that while Canada has national strategies focused on poverty and housing, there is no program specifically targeting student homelessness in the region because student homelessness has not been identified as a problem.

For students who need help, there are several options in the region. House of Friendship provides food and housing support as well as addiction treatment, all of which is accessible to students. Similarly, the KW Community Fridge, located in the Kitchener Market, provides free food to members of the community, including students. WUSA also provides a food support service — a non-profit service that provides confidential assistance and food hampers to members of the UW community experiencing food insecurity.
Waterloo students compete in world’s first autonomous race

Mahek Kaur
Reporter

The world’s first autonomous race at Indianapolis Motor Speedway ended in a disappointing crash for two University of Waterloo students in late-October.

The team consisted of Brian Mao, a master’s student in applied mathematics, and Ben Zhang, a master’s student in electrical and computer engineering. They also had teammates from three U.S. universities including the Massachusetts Institute of Technology, the University of Pittsburgh and the Rochester Institute of Technology.

The two UW students helped design a self-driving race car that was able to reach up to 120 miles per hour to compete in the Indy Autonomous Challenge (IAC) on October 21.

The IAC was organized by Energy Systems Network and the Indianapolis Motor Speedway, featuring nine teams of students from 21 universities across nine countries. UW students’ race car crashed on the exit of turn 4 during the warm-up.

The purpose of the IAC was to help drive advancements in technology that could help speed up the commercialization of self-driving vehicles.

The participating race cars were required to finish two laps as fast as possible, with the top three teams moving on to an additional race to compete for the grand prize. There was also an obstacle avoidance challenge.

Before the UW students’ team’s race car even completed their warm-up lap, a GPS failure resulted in an unplanned left turn into an infield wall.

A German team from the Technical Institute of Munich, which consisted of 45 masters and PhD students, took home the grand prize with an average speed of almost 136 miles per hour.

Two other race cars achieved a higher speed during their laps. A team from the University of Modena and Reggio Emilia, the University of Pisa in Italy, ETH Zurich in Switzerland and the Polish Academy of Sciences achieved a speed of 139 miles per hour during their first lap but slowed down significantly shortly after due to a programming error.

The Polytechnic University of Milan and the University of Alabama’s race car achieved the fastest speed of the event at 137 miles per hour, but crashed due to a GPS error.

Overall, four of the nine competing teams crashed or failed to complete the race due to similar problems.

Despite the crash, Mao and Zhang told UW that they had no regrets and learned a lot from their experience preparing and competing in the challenge.

“The crash doesn’t take away from the entire experience,” Mao said. “I still learned a whole lot, experienced many things, and it’s all about the journey, not just the destination. We know how to do better in the future now.”

Contact lenses that deliver far more than vision correction

Shaza Syed
Reporter

Newly emerging contact lens technologies from researchers at the University of Waterloo have the potential to change the way people see the world — literally.

Lyndon Jones, director of the Centre for Ocular Research & Education (CORE) at UW is a world-renowned contact lens researcher. His research includes studying the interactions between oxygen permeable lenses, tear film and ocular health. In his recent paper titled, “Contact Lens Technologies of the Future,” Jones covers the numerous possible applications of contact lenses.

“People typically think of contact lenses as just another way of correcting poor vision and being an alternative to spectacles. However, over the past decade we have seen tremendous developments in the potential for contacts to detect eye and systemic disease, in addition to delivering drugs to manage these diseases,” Jones said in a Waterloo News article.

“We already have electronic contacts that can screen for glaucoma, treat itchy eyes due to allergies and photochromic contacts to protect the wearer from bright lights.”

Contact lenses have the potential to serve as diagnostic tools for various diseases. Tears can serve as biomarkers and contain vital information that, when in proximity to specialized contact lenses, can be used to diagnose and manage various syndromes.

Currently, research suggests the use of tear film to measure glucose levels can be a viable method of monitoring diabetes. Tear film is a thin fluid layer that covers the exterior of the eye. Through evolving research in biochemical tear film sensing technology, there is potential to diagnose other diseases such as cancer, hypertension and Alzheimer’s in the future. Lenses such as these will not only manage existing conditions but also lead to quicker diagnosis and detection — a key player in positive long term health outcomes.

“Novel biomaterials, nanotechnology progress, unique optical designs, biosensing discoveries, antibacterial surfaces and battery miniaturization and power transfer are coalescing like never before,” Jones said.

There is one such technology that is expected to be available for consumer use very soon. Johnson & Johnson Vision is expected to release the world’s first contact lens capable of delivering drugs to treat itchy eyes. The advantages to contact lens-based delivery over eye-drops includes better control and accuracy in medication delivery. Patients suffering from seasonal allergies, infections and dry eyes can rely on their contacts to treat these symptoms alongside vision correction.

Other examples of contact lenses already in use are lenses used to control the development of nearsightedness in children. These modified contact lenses can help keep prescriptions low and maintain better vision throughout life. Additionally, lenses that can monitor eye pressure in glaucoma patients over a long period of time can help manage the disease.

Contact lens research may also change the way we perceive and interact with the world. Research in augmented reality (AR) technologies open the door to new realities — one with magnified objects, increased contrast and corrected colour vision.

Read the full article online at uwinprint.ca.
Deep neural network identifying disease biomarkers in tissue samples created by UW researchers

Sarah Hammond
Reporter

Within University of Waterloo’s Cheriton School of Computer Science, researchers have developed a new deep neural network which identifies 98 per cent of peptide features within a set of data. This technology can help diagnose disease biomarkers within a tissue sample.

The neural network is a form of AI that Fatema Tuz Zohora, a PhD researcher at the Cheriton School of Computer Science, and her team have named Pointiso. It uses the data in massive databases of existing sequences from other biosamples and can look for multiple markers of disease.

This technology is so powerful because it is not focused on only searching the sample for one disease — it seeks to identify several different biomarkers associated with diseases such as cancer, heart disease and COVID-19.

“Pointiso is applicable for any kind of disease biomarker discovery. And because it is essentially a pattern recognition model, it can be used for detection of any small objects within a large amount of data. There are so many applications for medicine and science; it’s exciting to see the possibilities opening up through this research and how it can help people,” Zohora said.

Currently, to discover disease biomarkers, numerous laboratory techniques have to be used in tandem including liquid chromatography and mass spectrometry. The data resulting from these tests must be manually analyzed for peptide features — a process that is susceptible to human error even when using specialized software.

“There are so many applications for medicine and science; it’s exciting to see the possibilities opening up through this research and how it can help people.”

FATEMA TUZ ZOHORA, PHD RESEARCHER AT THE CHERITON SCHOOL OF COMPUTER SCIENCE, POINTISO TEAM

“We’re working to make disease detection more accurate to provide healthcare practitioners with the best tools.”

FATEMA TUZ ZOHORA

“Existing programs are often inaccurate or can be limited by human error in their underlying functions. What we’ve done in our research is to create a deep neural network that achieves 98 per cent detection of peptide features in a dataset. We’re working to make disease detection more accurate to provide healthcare practitioners with the best tools,” Zohora said.

Peptides are chains of amino acids that can form proteins. These chains can be a marker of disease based on their sequence, structure, and other factors. Technology used to analyze these peptides can determine if a disease is present in a given sample with decent accuracy.

Pointiso completes the analysis of peptides in a way that is not susceptible to human error and achieves 4 per cent higher detection than existing datasets. The technology is designed to continue learning as it gathers more information and determines parameters without the direction of experts.

“Other methods for disease biomarker detections usually have lots of parameters which have to be manually set by field experts. But our deep neural network learns the parameters itself, which is more accurate, and makes the disease biomarker discovery approach automated,” Zohora said.

Currently, a large part of human medicine and diagnosis requires the analysis of multiple samples. It takes a lot of computational power to search the massive databases available and apply the patterns of disease markers to the target sample and ultimately diagnose a patient, therefore it is imperative that the best possible software is employed.

MAHNOOR IRFAN
4 ways to be creative in a short time

Bryanna Oriuwa
Reporter

It's hard for students to think about being creative when life seems to demand so much from them. Exams, assignments, work, extracurriculars — it's just deadline after deadline. Everything else seems to be less important, school and work is paramount — right? Wrong!

Even in the midst of stressful times, we need to take time to explore ourselves, ease our mind and turn our attention to things that make us happy, make us wonder, make us dream. All work and no play makes Jack a dull boy, or whatever the ghost in The Shining said.

The truth is, even in university, we need to release our inner-child, our inner-joy, our inner-creative! This is not limited to arts and crafts but thinking and doing things outside our everyday routine, whilst also minding our deadlines and obligations. Here are four ways we can be creative in a short time:

1. Remember that fun thing you've been putting off for months? DO IT.
   Focusing on work and school has prevented many of us from accomplishing long-term goals. Most of us have that one thing we have been wanting to do but never had the time. Funny thing is, that one thing would probably take a fraction of the time you believed it would once you get it done.
   Change your routine. When you have a spare moment in your day, do not rush to complete other tasks on your agenda. Take an hour to read a chapter of that book that's been sitting on your shelf for weeks. Take 30 minutes to assemble that IKEA desk you’ve been meaning to put in your room. Watch an episode of that show. Cook that recipe you saw on TikTok. Despite our busy lives, we will find joy and invention when we indulge in the tasks we have yearned to do for so long. After reading that book, maybe it will inspire you to explore a concept in your next essay.
   After making that meal, maybe you will find a new passion that turns your life in a new direction. We are not meant to do the same thing every day — conformity is the enemy. This slight shift in our daily routine can help us see the world through fresh eyes.

2. Put your phone away
   We often see others showing off their creative side online, wishing we could do the same. But how can you show anything if you haven't put in the work? We spend ample amounts of time on our devices — sometimes for a good reason, sometimes not. We often lose our breaks, the miniscule window of freedom in our days, to scroll or text when that time could be put towards something meaningful.
   To bolster our creative output, while keeping our marginal time limits in mind, we should avoid all digital distractions and live in the now. Avoiding online activity can prevent us from procrastinating and help us concentrate on tasks outside the digital realm. Experiencing the world around us — even if just the confines of our homes and study spaces — we can find new things to be intrigued by. As per my first point, staying off our phones for even a few minutes can help us complete a task.

3. Make 'yes' part of your vocabulary
   During demanding times, we may limit ourselves to our perception of our own capabilities. It is easy to say 'no' to anything that could derail us from our duties at hand. But have you ever noticed that the most rewarding and enjoyable times come from spontaneous moments to which we would otherwise never agree?
   Opportunities present themselves all the time and we often adopt a passive attitude that can trap us in a repetitive loop. When we say 'no' to everything, we close ourselves off to being introduced to novel experiences that can open our lives to a new state of being. Adopting a positive attitude and willingness to learn, grow, and excel can lead us to our next creative project or opportunity.
   However, the goal is not to say 'yes' to everything — time is money and we may not have the luxury of indulging in every prospect that comes our way. Nonetheless, it is essential to develop a balance, where we can be fulfilled while remaining on target. Your teacher asks you to join a committee that meets once a month — say yes. Your friend asks you to attend an art show after class — say yes. We never know when we will have these chances again and they might inspire you in the next phase of your life. Take risks and take these moments with stride.

4. Surround yourself with creative energy
   As university students, we may feel isolated and sequestered in the piles and piles of work we have to do. But the best part is, we are never doing it alone! Thousands of students are working away and getting things done on the daily, but there are also many that take the time out of their day to be creative.
   I'm sure we all know that one person who always seems to be doing a hundred different things and still has time to go to class, study and have fun. Those are the people you want to align yourself with. The people that can inspire you to find yourself. Immerse yourself in the unconventional and ingenious ways of others. See how they strive to meet their educational and creative goals, while maintaining a delicate balance. Building a rich network of creative and intriguing people can help you learn so much about yourself. Once this network has been built, it will be easy to find ways to immerse yourself in tasks that will fulfill you in a short amount of time.
   The goal in all this is to understand that our time is precious. It may feel like we have all the time in the world, but sometimes life comes down to a few short moments. Give yourself a moment to breathe, to feel, to appreciate. It may be hard during this season, but finding time to develop creative outlets will ease the tension and stress you may be experiencing. If you have a single opening, a single time slot, channel the energy you have inside and turn it into something worthwhile.
From Idea... To Creation

Erin Froud
Assistant Arts and Life Editor

Although I’m sure it’s all been said before, for me, the creative process goes far beyond just the times I sit down to write. As important as it is to write consistently, consuming interesting media is what keeps my creativity flowing. Between 2019 and 2020, I didn’t write anything, largely because I had stopped reading for fun. When I finally made a 2020 New Year’s Resolution to read for fun again, it was as if a part of my brain that had been shut off lit up again, and the inspiration to write soon followed.

Having consistent access to new ideas fuels the next important non-writing step in my process: daydreaming. Obviously, one should not daydream all the time, since we are human adults who have to pay attention to concrete things. However, taking some time to play music and genuinely indulge in the urge to daydream — to let all the new concepts my brain has absorbed be processed and combined in both new and interesting ways — is how story ideas come to me.

I keep a document of notes on my computer for my current projects, such as random dialogue, notes on themes, and questions that I want to think about as I continue to daydream and write. If I feel the need to physicalize my thoughts even further, pre-writing, Pinterest boards and playlists are the perfect ways to do so. If I have a solid idea, I also like to run it by a trusted friend and get their opinion. Sometimes, even at the very beginning, having another set of eyes on a project can help me see it from new and interesting angles.

I have stalled on writing for long enough. I personally prefer to write in the mornings, while my mind is still fresh. Though I try to write for about half an hour — about 400 words — a day, sometimes I have no energy, or have an excess of responsibilities andskip some days, the inspiration sweeps me away and I am able to put my life on hold for an hour or more and crank out 1,500 words at once. The ability to write, like anything, depends on a multitude of factors and, while it should be a consistent practice, it doesn’t need to be forced if there is no deadline. I always try to remember that I’m writing for fun, so it shouldn’t feel like a chore.

I like to listen to the playlist I have inevitably created for the story while I write, sometimes putting on repeat one or two songs that capture the mood I am currently writing. Sometimes I put a single song on repeat and take a solid 20 minutes of my writing time to daydream, mapping out what I am going to write in my head before putting it to paper. Moreover, in the service of not making writing a chore, I write what I can — meaning if I can only come up with a scene outline or the dialogue, that is what I write, knowing I can come up with the rest of the scene later.

While I carefully consider my word choice while I’m writing, I try my best not to edit more than a few words when I go back and read my work the next day. A word or a line changed is acceptable, but anything that feels like it should be entirely rewritten is simply marked with a comment for later. Especially when writing a first draft, it is important to keep moving, or it will never be finished.

Finally, I am a big believer in constructive criticism. However, choosing who gets to review and criticize your work is very important. It should be someone enthusiastically willing to do so, but not someone who will only praise your work to the skies — that will give you a great ego boost, but do nothing for your work. I am lucky to have several people who are not only willing to read my work, but to criticize it honestly, just as importantly, I am willing to take their criticism and recognize, whether I agree with it or not, that they are not criticizing me as a person, but trying to help me make my work better.

Resources offered by the UW Library

Khalid Safdar
Reporter

Finals season has never been easy; however, using the right resources can help ease the anxiety experienced during this time and keep you on top of the workload. A library is a great resource in times like these as it provides valuable information integral to many aspects of one’s academic pursuit.

The University of Waterloo Library has everything you may need when completing last few assignments including lab reports, essays, and articles. From writing accurate citations to finding articles that complement your research, the university library is the perfect place to be, whether you’re in-person on campus or logging in online.

Here are some of the resources you can find while browsing the site:

Subject research guides
The subject research guide is precisely catered to get you instant access to every detail you’re required to know about your course or faculty. You can find accessible papers, books and data; get help in citation processes; access various software tailored to your subject and even get writing assistance. It provides you access to more than 50 subjects ranging from astronomy to nanotechnology engineering, as well as information on optometry — exclusive to UW.

This resource also provides you with the contact information of the most qualified librarian for that subject. You also have access to discuss any information or clear any confusion by scheduling a virtual meeting with that respective librarian.

Integrated library catalogue system
This system was launched when the pandemic hit and has been providing useful resources ever since. The new catalogue system provides you with access to top-tier journal articles, government articles, and peer-reviewed articles which is integral for many assignments all through using one simple “Google-style” single search box from the library’s homepage.

All you need to access resources directly from the catalogue is your William account, and you’re all set to embark on your educational journey. Imagine having a research paper due, and you need good peer-reviewed articles to cite but can’t find any at the local library or online.

This is going to be a lifesaver in these situations as it gives you access to more than 16 institutes across Ontario. To do so, search your topic of interest in the catalogue, browse through the results and pick the desired source. The catalogue will provide you with two options for how to access the materials: get an online accessible version or a physical copy (if applicable).

Beyond the helpful features of the catalogue, the library also provides many more resources which can all be accessed through its website 24/7 from anywhere.
Recreational on-campus activities to keep students in shape

Yousuf Afzal
Reporter

The University of Waterloo has been seeing a gradual return to campus, and with it, comes the reintroduction of recreational activities. While students are gearing up for their final exams and buckling down to study, it's important that they make time for breaks and participate in some physical activity.

Engaging in physical activity holds benefits that extend beyond improving health and reducing stress levels. A 2017 Stanford study found that students that engaged in on-campus recreational sports and exercise performed better academically on average than their non-participating peers. As per the researchers, "Our findings suggest that students spend more time on campus and are better able to integrate studying and exercising, which may enhance the effectiveness of studying and thus improve student performance."

The majority of on-campus recreational activities can be accessed through UW's Athletics Membership. Free of charge for students currently enrolled in classes, membership can be obtained on the Athletics Portal. The membership provides students with access to a variety of amenities ranging from various aquatic activities like free lane swimming, to sports such as basketball. However, some of these activities may be subject to reservations and occupancy limits as per the university's COVID-19 guidelines.

UW also offers a multitude of smaller athletics passes pertaining to specific activities. These include the opportunity to try out the Student Life Centre's new, state-of-the-art climbing wall with the Rock-Climbing Membership. For $30 per term, students have access to 90-minute daily sessions. Alternatively, they can pay $37.50 for the term which includes a shoe rental service. Other exciting passes include the Fitness Class Membership, which allows access to any fitness class on the Waterloo Recreation schedule — examples include yoga, Zumba and even barre lessons for students.

The most popular option for recreational activities on campus remains Waterloo's Open Rec facilities. Free of cost and open to all students with a Waterloo Athletics Membership, the facilities include the Physical Activities Complex (PAC) and Columbia Icefield (CIF) fitness centres for cardio and strength training as well as a host of different fields and courts pertaining to the sport of choice. Students can check timings for basketball, ice skating, volleyball and indoor fields at both PAC and CIF on the Athletics Portal. With no capacity limits as of Oct. 25, students are able to get back into the swing of physical activity indoors as the colder weather sets in.

With the final stretch of the semester looming ahead, students can take advantage of decreased pandemic restrictions and the campus' wide range of athletics offerings to boost their mental health right before the dreaded exam season arrives. Details about Waterloo's Athletics Memberships, the activities available and where to sign up for the few athletics that still require reservations can be found on the university's Athletics Portal.
Warriors hockey home games to mark on your calendar

Alexandra Holyk
Executive Editor

Are you even Canadian if you don’t watch or support hockey? Whether or not you can skate, consider adornning yourself with black and gold and head to one of these upcoming Warriors men’s and women’s hockey home games to support your fellow University of Waterloo students.

Warriors women’s hockey team
Nov. 26, 2021 at 7 p.m. vs. Western Mustangs

Make your way down to the Columbia Icefield (CIF) Arena to support the Warriors women’s hockey team against the Mustangs. Waterloo is coming off of a pre-season exhibition game high, winning 6-3 against Western at a home game on Oct. 17.

Jan. 8, 2022 at 7:30 p.m. vs. Ontario Tech Ridgebacks

This exhibition game will see the Warriors battle it out against the Ridgebacks for the first time in almost two years. At their last meet-up, Ontario Tech scored with 17 seconds remaining in the third period, finishing the game with a 5-4 loss for Waterloo.

Jan. 14, 2022 at 4 p.m. vs. Brock Badgers

The last time the Warriors’ women’s hockey team played the Badgers was Feb. 8, 2020, where the Warriors lost with a mere 1-0 final score. Waterloo and Brock play two back-to-back games, with the teams heading to St. Catharines on Jan 15.

Feb. 4, 2022 at 7 p.m. vs. Guelph Gryphons

TheWarriors women’s hockey team finally meets with the Gryphons once again, after winning their last home game against Guelph on Nov. 19. Waterloo is on a four-game win streak against Guelph so far, but that might change when the Warriors play the Gryphons in Guelph on Feb. 2.

Feb. 12, 2022 at 7:30 p.m. vs. Laurier Golden Hawks

The last time the Warriors played their crosstown rivals at home was Nov. 6, with Waterloo winning 2-0. They are currently on a four-game win streak against the Golden Hawks, but all that can change at their first meet-up of the new year on Jan. 20 at Laurier.

Feb. 18, 2022 at 7 p.m. vs. Windsor Lancers

The next time the Warriors’ women’s hockey team plays the Lancers at home will be in one of two back-to-back games, with the second happening in Windsor on Feb. 19.

Feb. 25, 2022 at 7 p.m. vs. Western Mustangs

In another back-to-back set of games, the Warriors host the Mustangs in late-February. This is one of the last games of the regular season, so a lot will be riding on both teams before the playoffs.

Mar. 5, 2022 at 7:30 p.m. vs. Brock Badgers

To end off their regular season, the Warriors will play the Badgers on Alumni Day at the CIF Arena. A win in this contest could give the team momentum for a playoff run.

Warriors men’s hockey team
Nov. 27, 2021 at 7 p.m. vs. Guelph Gryphons

The Warriors’ men’s hockey team and the Gryphons last met on Nov. 5, where Waterloo won with a nail-biting goal in shootouts. They’ll be making up for lost time with two games just days apart, first battling it out in Guelph on Nov. 25.

Dec. 4, 2021 at 4 p.m. vs. Windsor Lancers

The Warriors’ last two home games against the Lancers weren’t very successful, with their most recent meet-up at CIF arena on Nov. 20 seeing a 3-1 loss. The last time the Warriors won against the Lancers at home was when Windsor forfeited, so hopefully Waterloo will be able to beat them at home for real.

Jan. 15, 2022 at 7 p.m. vs. Laurier Golden Hawks

The next home game for the Warriors men’s hockey team isn’t until the start of the winter 2022 term, but they’ll be hosting the Golden Hawks just two days after playing against them at Laurier on Jan. 13. Waterloo hasn’t been doing too well against Laurier — they lost their last regular season and their exhibition game to the Golden Hawks in fall 2021 alone. Maybe 2022 will be the year for redemption.

Jan. 21, 2022 at 7 p.m. vs. Western Mustangs

In the first of two back-to-back games against the Mustangs, the Warriors hope to redeem themselves after a devastating 5-2 loss in London on Nov. 12. They’ll be playing at Western on Jan. 22.

Feb. 5, 2022 at 7 p.m. vs. Guelph Gryphons

After the Warriors’ women’s hockey team play the Gryphons on Feb. 4, the men’s teams take the ice in what will be the second back-to-back game following their meet-up in Guelph the day before.

Feb. 17, 2022 at 7 p.m. vs. Laurier Golden Hawks

The Waterloo rivals meet again just days after the women’s teams face-off. This will be the first time the Warriors’ men’s hockey team plays the Golden Hawks in a month, and their last time during the regular season.

Feb. 26, 2022 at 7 p.m. vs. Western Mustangs

In their last game of the regular season, the Warriors face-off against the Mustangs in back-to-back games on Feb. 25 in London and Feb. 26 at the CIF Arena. The team is hoping to end off strong to propel them into the playoffs.

If you’re interested in attending the away games or finding out more about the Warriors men’s and women’s hockey teams, head to the Warriors athletics website.

Recipe: Salmon with lemon and onions

By Ingrid Au

With the sun leaving our sight by 4:30 p.m., what feels like a long day is made short by the early sunset. I, along with many others, feel drained. The last thing I need is a meal that feels like a chore. Therefore, I curated a fast and easy recipe — all done on a sheet pan. This recipe is a salmon topped with a combination of caramelized fresh onions and lemony goodness.

Tools:
- A sheet pan (preferred) or a casserole dish wrapped with aluminum foil

Ingredients:
- 2 onions (sliced) *save one for cooking and the other one to eat raw with the salmon if desired. If not, only use a single onion
- 1-2 lemons (thinly sliced) *size of lemon can differ, use the amount according to desired level of acidity
- 2 tbsp of olive oil
- 2-3 tbsp of capers
- Black pepper to taste
- Salt to taste
- 1 steak-sized salmon fillet

Optional herb toppings:
- Thyme
- Rosemary
- Dill

Instructions:
1. Preheat the oven to 375°F.
2. Place the salmon on a sheet pan and season with salt.
3. Prepare the toppings by adding sliced onions and lemons into a preheated pan with olive oil. Cooking the lemons and onions together first will enhance the flavours. Add in the capers once the onions are slightly golden and cook until the onions are golden brown. Add the cooked toppings to the salmon and place the salmon into the oven for 15 to 20 minutes at 375°F. It is done when you can easily fork the salmon into pieces and it is no longer translucent. Season with black pepper and serve.

This dish is very versatile and can be paired with quinoa, rice, toast, bagels, pasta, etc. It is a quick and easy recipe that you can leave in the oven worry-free. The aroma of lemons and caramelized onions fill your home with a sense of warmth and coziness that words cannot describe. But if the smell is not your vibe, pull out your favourite candle and have a night to yourself with this dish. Ideally, I would even set the mood with some nice music (go stream Red — Taylor’s Version!) But jokes aside, with the days getting darker, it’s very important to take care of yourself. So give this recipe a try and I promise you it will be worth it. Enjoy!
The importance of media literacy

Media literacy refers to the ability to critically evaluate and understand media.

According to the United States Department of Education, more than half of all American adults (approximately 150 million people), lack proficiency in literacy, meaning they read at a middle-school level or below. Similarly, almost half of Canadian adults struggle with literacy, with more than 15 per cent unable to pass even the most basic literacy tests.

Generally, media literacy for all forms of media, whether social media posts or films or novels, is low. Even people who can comprehend the basic information in a piece of content are sometimes unable to discern the deeper meaning or agenda behind the work.

Improving media literacy is vital in a world where misinformation is rampant, especially when it comes to a pandemic that continues to devastate communities across the country.

One of the first steps in understanding a piece of media is understanding why the piece was created. All content is created with a purpose, and while sometimes the purpose is simply humour or entertainment, often, the reasoning is more complex.

Consider the creator’s background — where they grew up, what community they were raised in, what education they received. Think about how these factors may have influenced their worldview. Next, consider how the creator might benefit from the work they have created. What purpose does their piece of media serve for them?

Make sure to note that multiple people are often involved in the creation of a work, from the author or artist to the editors, publishers and other figures who may have changed or directed the piece before it reached its audience. In the case of major film productions, for example, even writers and directors with significant creative control are not able to include absolutely everything they desire in their final product. Accordingly, think about how different figures involved in bringing the film to audiences may have altered the content to suit their agendas.

It is also important to consider how the creator is presenting their message. Two people who appear to be talking about the same concept may do so in very different ways, which often affects how people interpret their message. For example, a study from Stanford University found that the words people use to describe crime can influence the debate on how to fight crime.

When crime is compared to a beast preying on a community, people generally support increased funding for police forces and harsher jail sentences. By contrast, when crime is framed as a virus infecting the same community, people are more likely to support social reforms to reduce crime.

Ultimately, media literacy is a vital skill — one that can determine the outcome of political elections and the rate of adherence to public health guidelines. It is important to improve your media literacy and support the people around you in improving theirs.

Nicola Rose
Managing Editor

JOIN OUR TEAM!

Imprint Publications is looking for editors for the winter 2022 term. If you have an interest in writing and editing news, arts or opinion pieces, reach out to editor@uwimprint.ca.
Volunteer at IMPRINT

Email editor@uwimprint.ca
**last week's answers**

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ANIMALS  S  G  D
DOOMSDAY  T  A  E
R  FOREST  S
O  POWER  R  I  E
UTE  HX  BAK  E
GETATHUNBERG  T
HEL  SC
TE  E  FLOOD
SBCN  I
SNESTLE  OLS
TAEI  SEAASA
RCT  FOSSILFUELS
ALU  ISIT
WARS  G  RHEE
METHANE  EINR
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**this week's weather report**

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**bundle up warriors!!**