St. Paul’s University College is launching a new Indigenous Entrepreneurship program.

Ontarians boycotting Nestlé after drought plagues the province.

Professor Bin Ma has received a grant for his research in precision medicine.

How your peers spent Reading Week.

Learn how to take a proper power nap and wake up revitalized.

RAISE official launch party
Lili Liu appointed dean of UW AHS

Dr. Lili Liu will serve a five-year term as dean.

Harleen Kaur Dhillion
Editorial Assistant

Dr. Lili Liu was appointed as the new dean of the UW Faculty of Applied Health Sciences, according to UW press release issued Mar 1.

She is currently the chair of the Department Occupational Therapy in the University of Alberta Faculty of Rehabilitation Medicine and has also served on several thesis committees for graduate students in various disciplines which include civil engineering, nursing, human ecology, and computing science.

Liu will serve a five-year term in her position as dean and will begin appointment on July 1, 2019.

She will succeed Dr. Paul Stolee from the School of Public Health and Health Systems (SPHHS) who is serving as interim dean while the transition takes place.

Liu completed her Bachelor and Master of Science, as well as her Ph.D. at McGill University.

Her research focuses on the adaptation of new technologies for rehabilitation assessments.

She also investigates how technology can help older adults and their caregivers gain a better quality of life.

James Rush, vice-president academic and provost at UW, recognized Liu's experience in research and occupational therapy as valuable assets for the AHS faculty.

“Professor Liu’s experience as an administrator, combined with a track record of scholarship and strong experience in professional occupational therapy practice, will be an asset to the University of Waterloo,” Rush said.

“Her interest in interdisciplinary research and focus on helping people remain independent as they age will complement much of the work already underway at Waterloo,” Rush said.

As dean of AHS, Liu will be the head of more than 3,500 graduate and undergraduate students in the three departments of the AHS faculty: Kinesiology, the SPHHS, and Recreation and Leisure Studies.

VIP Student Housing hiding poor reviews

Sean Menezes
Reporter

For university students, finding a good residence for their academic careers is no easy task - and a current dispute over misinformation of one particular residence doesn’t make the search any easier. Several former tenants from an off-campus residence called VIP Student Housing have made claims that their attempts to leave negative reviews for the company have been met with threats of litigation from the landlord. These reviews contained complaints ranging from security concerns in the building to delays in getting deposits returned.

Despite these reviews, Sam Vranes, landlord and co-owner of VIP Student Housing stands by his building’s reputation. Vranes denies all allegations of poor housing quality, stating that the only purpose of these “fake” reviews is to damage the company’s reputation.

However, complaints against VIP student Housing are consistent in the claim that the company failed to return deposits made for their keys - which for some students was as high as $1,000. This refusal to return the students’ deposits has led some tenants to involve a third-party such as the Ontario Rental Housing Enforcement Unit to reclaim their money. Students who subsequently attempted to leave reviews that brought up these complaints were met with intimidation from Vranes.

One reviewer named Gareth Maddock condemns VIP Housing’s business practices, claiming that the company refuses to acknowledge any criticism from dissenting customers. Maddock states the company is unable to “reflect… and improve like most other businesses.”

Vranes’ response to these reviews include deleting any 1-star comments left on the company’s website, releasing private information of former tenants and in some cases, threatening to sue tenants. As a result, tenants who have dealt with such negative experiences attempt to warn potential residents of the consequences of leasing with VIP Student Housing. The main concern of this situation involves the students at the University of Waterloo who rely online reviews to choose their residence. If these poor reviews of VIP Student Housing were allowed to stay online, it would likely dissuade many potential tenants, an outcome that would not be in the best interest of Vranes.

Although there are also reviews in defense of Vranes, consistent complaints in addition to allegations of silencing criticism are troublesome for prospective residents.

Not having all the information regarding the quality of service, security of the building or the policies of a landlord can negatively impact a student’s future lifestyle. All students deserve the right to accurate information, especially for something as important as their choice of residence.
RAISE-ing the bar for diversity

Harleen Kaur Dhillon  
Editorial Assistant

Yousef Arafeh is a person with many intersecting identities. As a queer person of colour, she has faced many homophobic experiences on campus as well, but the University of Waterloo (UW)’s new Racial Advocacy for Inclusion, Solidarity, and Equity (RAISE) was there to help Arafeh through tough times.

“They helped me through a problem that I had, because I’m considered a person of colour and I had so many homophobic interactions on campus — many people are homophobic with me — and RAISE showed up and helped me with that as I am an intersectional person,” she said.

Arafeh now volunteers at RAISE. RAISE celebrated its official launch on Feb 27th in Feds Hall, with people of various backgrounds arriving in cultural attire.

All RAISE executives, as well as executives from other equity-based Feds services, students, faculty, staff, and representatives from UW, including President Feridun Hamdullahpur, were also present. RAISE is a new Feds-run service at UW meant to create designated safe spaces and events for students of colour and their allies.

RAISE, located in SLC 2141, began as a rift between some students looking for data and the Equity Office, and has now grown to be a service of its own.

Fiqir Worku is a co-ordinator of RAISE, along with Hanan Thibe.

“RAISE serves to address racism and xenophobia on the U of W campus with initiatives reflective of RAISE’s three pillars: education and advocacy, peer to peer support, and community building ... Our team has been very supportive of one another and have all worked many hours to make sure events, discussions, and meetings run smoothly,” Worku, fourth-year Health Studies student said.

Victoria Rodney, president of UW Black Association for Student Expression (BASE) and third-year Health Studies student, was a founding member of RAISE. She said being a student activist is also very stressful.

“It’s a pleasure to stand here tonight, celebrating the creation of what like two years ago or one year ago, was literally just an idea. It was just me and my friends talking about how frustrated we were with the campus ... Soon after becoming a part of BASE, I would be forced to take off the rose-coloured glasses that I viewed UW with,” she said. “So imagine being a student experiencing these acts of violence, which is exactly what racism is, and having to care for others while you, too, are injured. Not that great. I can tell you that much, it’s very, very stressful ... However, it was the stress that pushed us to get to work.”

RAISE aims to advocate for people of colour and bring about change in the student community with regards to cohabiting with people of colour. Students present at the event were in support of RAISE and said that such a racialized service is long overdue.

“This change is something that should have happened way back, a long, long time ago because ... we like to think that [racism] doesn’t exist, but it is really dominant within the community at UW,” Talveen Kaur, a legal studies and sociology student said. “It’s really good to see allyship and strength in numbers when we are fighting white supremacy... [RAISE] creates this inclusion and equity that is much needed and also targets those who are racially discriminated [against].”

President Hamdullahpur also made an appearance at the event, and gave a special speech in honour of RAISE and the students that worked so hard to create it.

He said that he was proud of the work that UW students have managed to do and recognizes the necessity of RAISE on the UW campus.

“RAISE is wonderful because it’s done by students, thought of by students, they put it together and they made it work, we’re here ... It’s an unbelievably proud moment for me. It doesn’t matter what background, ethnic origin anybody comes from, this is a world where everybody comes together, there’s a place for everybody, there’s a respectful place for everybody equal place for everybody, and this is the world that,” Hamdullahpur said. “It’s not been like this all along but thanks to our brilliant students, millions and millions of them, we are heading towards... building a much better world starting here on our campus,” he said.
A female is killed every 2.5 days in Canada

Sarah Mazen
Reporter

Female, the killing of women and girls primarily by men, has been on the rise for the last 40 years. In 2018, 148 women lost their lives to this trend. In Canada, the rates of violence against women and femicide are higher for Indigenous women. The Canadian Femicide Observatory for Justice and Accountability (CFOJA) is a web-based research information centre by an interdisciplinary panel of experts from across the country. CFOJA has two main objectives: to address the need for a location for information on justice and accountability for femicide victims in Canada and to facilitate innovative and sustainable research agendas on femicide.

The organization was established by the Centre for the Study of Social and Legal Responses to Violence at the University of Guelph in 2017 and published their first annual report, #CallItFemicide this year. The report begins by discussing femicide events that occurred in Canada that have been somewhat overlooked, for example, the mass femicide at École Polytechnique, Université de Montréal in 1989. The massacre caused the death of 14 women and 10 women to be critically injured by Marc Lépine, who claimed he was fighting feminism and blamed feminists for ruining his life. Many feminist groups and government officials characterize the massacre as an anti-feminist attack that is representative of wider societal violence against women. A study led by a group of women who decided to meet the same year as the Montreal Massacre and set themselves to learn about women killed by their intimate partners and called themselves the Women We Honour Action Committee. Lastly, many initiatives throughout Canada drew national and international attention to the missing and murdered Indigenous women and girls in Canada. This continues to be a major issue among the Indigenous community.

Today, the highest rate of femicide is in Nunavut followed by Yukon, New Brunswick, and Manitoba, and the lowest rates were in Quebec, followed by British Columbia and Nova Scotia. The most prevalent areas of women and girls killed is in rural areas making up 34 per cent of the annual killings in 2018, and 16 per cent of the Canadian population. The majority of the cases involved shooting, stabbing or beating, and were within the age group of 24 to 34, making up 14 per cent of the Canadian population.

The report focuses on three main types of femicide: intimate femicide, involving an intimate partner of the victim; familial femicide, involving relatives; and non-intimate femicide, which involves male acquaintances and strangers. This introduced five major gender-based motives for femicide: mysogyny, sexual violence, coercive-controlling behaviors (including jealousy and stalking), separation, and overkill.

Various socio-demographic factors that were common highlighted groups of victims that are more at risk of being involved in gender-based violence. The group with the highest risk was Indigenous women and girls, followed by immigrant women and girls, older women, and women and girls with disabilities, making up a significant portion of women and girls in Canada.

Ninety-one per cent of the accused are male, which is consistent with not only national, but international patterns as well. It was found that the home is the most dangerous place for women and girls with 53 per cent killed by male partners and 13 per cent killed by male relatives. The remainder were killed by male strangers and acquaintances.

These statistics shocked Canadians across the country, including University of Waterloo faculty. “It is disturbing that the level of violence, including killing, against women and girls, continues at such high levels, despite advances in women’s rights over the past 40 years,” Dr. Marlene Epp, professor of History and Peace & Conflict Studies said. “We need to keep socializing and educating young girls and boys about gender equality and that violence of any kind is not a solution to conflict, whether interpersonal or interstate – because these are connected. We need to lobby for better gun control such as banning handguns and assault weapons. And we need to oppose popular culture — movies, music, video games — and social media that actually encourage violence against women, girls, and gender minorities.” To prevent these problematic situations, the media, criminal justice system and the legislative and policy contexts will be examined, as they play a powerful role in challenging problematic attitudes, beliefs, and stereotypes that work to maintain men’s violence against women and girls.
There has been increasing concern from city officials about the growth in unsanctioned student parties happening during homecoming gameweekends and major celebrations. It is not uncommon for students to know of big street parties such as on Broughdale Avenue during Western University’s Fake Homecoming (FOCO) or during St. Patrick’s Day at Wilfrid Laurier University on Ezra Avenue.

Such parties happen at most post-secondary institutions across Ontario and North America. They are common to the classic college student experience. The question arises - why has this issue suddenly received new attention these past few weeks?

Ed Holder, Mayor of London, considers the extreme events at these street parties. Whenever drugs, alcohol, and crowds of students are gathered, events get out of hand.

“There will be blood on all our hands,” Holder said.

Last September, 20,000 students attended Western’s FOCO and 3,000 warnings were issued, including 130 provincial offence warnings. This event cost the London police upwards of $100,000. Fifty-two people were hospitalized, and one person suffered serious injuries from jumping off a roof. Similar numbers were reported by other universities.

People coming to these parties from out of town add another layer of complexity for school administration and cities to address.

On St. Patrick’s day in 2018, 22,400 celebrated on Ezra Avenue. This was nearly 1.5 times more than the 15,000 that showed up in 2017. Seventy-three per cent of the 619 charges were laid on non-Laurier students. It is very common to see students travelling from other schools to attend these parties, and, while Laurier can communicate to its students the consequences of partaking in parties and acting illegally, this message does not affect the behaviour of people who do not attend the school.

“It may seem like a simple problem to solve but in fact it’s very difficult,” Kevin Crowley, Laurier’s Director of Communications, said. “Very smart people with the police, very smart people with the city, very smart people with the universities have been trying to contain this and shrink it and hopefully eliminate it and it’s slow going. If it was easy I think we would have resolved it already.”

Laurier and Western are not alone — street parties are an ever-growing issue present at schools across the board and officials are taking more action than ever to curb this problem.

A discussion in Waterloo with representatives from eight universities across Ontario regarding unsanctioned parties including Ontario University Athletics (OUA) who has taken initiative in addressing this issue as well.

In the 2019 season, homecoming games for Laurier, UW, Western University, McMaster University, the University of Guelph, and Queen’s University will be held on two weekends as opposed to spreading them out over the regular five to six weekends as in the past.

“We’re about the student-athlete experience, we’re about the student experience ... we want to make sure that we’re supporting the directives of the universities and making sure that the culture is the right culture on campus,” Gord Grace, the Chief Executive Officer of OUA, said.

OUA is hoping that by limiting the weekends for football games, students will not be able to travel to these different schools so frequently, limiting the number of people showing up to parties and controlling illegal activity.

As St. Patrick’s Day approaches this year, this issue still persists. Officials are trying to find out why university parties are such an attraction for youth, and to better understand how they can lessen the negative impact of such events. What school administration arranges with city officials — whether that is increasing severity of punishments or enforcing strict regulations — is yet to be seen.

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Amanda Guo
Reporter

Students flood Ezra Avenue in Waterloo during St. Patrick’s day at Wilfrid Laurier University in March. 2018.

COURTESY THE CORD
Recently Ford government made changes to several aspects of financial aid.

Harkirat Sunner
Reporter

Recently, the Ford government introduced a proposal to change various aspects of financial aid for students. The changes include a more stringent control over who receives OSAP funding, with a three per cent increase in the share of funds going to low income families.

The idea behind this cut is to restore the sustainability of financial aid programs and to relieve the burden of student debt since students often face the repercussion of high interest rates associated with the loans.

To offset the decrease in financial aid, the Ford government announced a 10 per cent reduction in tuition alongside the introduction of the Student Choice Initiative.

The student choice initiative allows students to choose which ancillary fees to pay and how that money will be allocated.

Merilee Fullerton, the Minister of Training, Colleges and Universities, said that the student choice initiative “will ensure students have transparency and freedom of choice regarding the campus services and organizations which get access to their money.”

Overall, the universities will decide which fees are mandatory, and which ones are optional and the students decide whether or not to pay the optional fees.

On the surface these changes seem beneficial, as they hold student clubs more accountable due to the absence of promised a certain portion of student fees. Student clubs will have to secure their funding by proving their value to the students. This imposes restrictions on clubs and can hopefully prevent situations such as the credit card scandal within the Ryerson Student Union.

However, many student clubs feel attacked by these changes.

The ability for the government and the university to directly impact the funding of clubs raises a conflict of interest.

Student unions and student newspapers often take on the responsibility of holding the government and the university accountable for their actions.

By making certain clubs optional, there is a strong possibility for this policy to harm the quality of services available to and the overall post-secondary experience of students.

Suhani Saigal
News Editor

On Feb. 4, Honourable Kirsty Duncan, Minister of Science and Sport, announced that Chelton School of Computer Science Professor Bin Ma is the recipient of $462,998 in research support from Genome Canada. Ma will be using this grant for his project Software for peptide identification and quantification from large mass spectrometry data using data independent acquisition. Including additional funds, the total amount of his project’s funding comes to $925,087.

This was part of a national announcement of $22.7 million in Genomics and Informatics Research Funding. Provincial governments, businesses, and research partners have also invested an additional $33.4 million.

Ma’s project is focused on developing software that improves the efficiency of precision medicine, in collaboration with Professor Michael Moran from Toronto’s Hospital for Sick Children. Precision medicine refers to treatments that are customized to suit the health of individual patients and aim to achieve the best therapeutic outcomes with minimal side effects. Precision medicine can detect and measure protein molecules in blood and tissues and further use them to identify abnormal processes that are caused by a disease and then to see the body’s response to the treatment.

Mass spectrometry is a technique which shines light through a sample solution to reveal the chemical structure and properties of a compound, and to quantify known and unknown materials.

Ma and his research team aim at developing software, which will allow protein identification, and quantification that is more sensitive and accurate, using a method called data independent acquisition (DIA).

This method results in the generation of huge quantities of data that can only be analyzed using software that can process large datasets.

The goal of the team is to create software that will identify and measure protein molecules using DIA mass spectrometry techniques.

Sifting through mass spectrometry data smoothly and comprehensively is difficult, and as of now, there is no software that helps with this.
Campus Question

See what students think about current issues

This week: Were you satisfied with how you spent Reading Week? Why or why not?

Ashutosh Adhikari, Master’s Candidate
Math Computer Science Thesis

“I’m a grad student so the way I see it, every week is a Reading Week for me. We do not take as many courses as undergrads, and we don’t have to study as much because we have less exams. Our courses are more research-based, which I take more of because I am doing a computer science thesis. But in terms of the actual week itself, I just came to the library and did work, as per usual.”

Clare Roxas, 4A
Actuarial Science

“It wasn’t as productive as I wanted it to be, which is not good because I have a lot of midterms going on right now. I got to study a little bit, but it was mostly just sleeping in, self-care, that kind of stuff.”

Hassan Quershi, 3A
Environment and Business

“I spent Reading Week working on my projects. I wasn’t in Waterloo, but I was still working on my assignments, projects, and co-op work term report. It was really productive for me, as well as relaxing because I got to escape the stress of having to attend lectures.”

Nicole Soja, 1B
Biology

“I got to sleep in! Sleeping in is always a good time. I also got to catch up on some school work. So right now, I am back on track and on par with the course schedule, so now I have to work on just maintaining that balance with everything.”

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Blood in the Snow 2019

Touring across southern Ontario this March!

Kitchener, ON (Apollo Cinema)
141 Ontario St N, Kitchener, ON

Wednesday March 13
7:00pm - The Final Ride (World Premiere)
9:30pm - I’ll Take Your Dead (Kitchener Premiere)

Thursday March 14
7:00pm - The Hoard (Kitchener Premiere)
9:30pm - Lifechanger (Kitchener Premiere)

Tickets and passes at bloodinthesnow.ca
Lori Campbell, and others like her, are working to fight misconceptions about the place of Indigenous folks in our society. Many Indigenous students feel that some fields, such as business, have no place for them.

“It seems like Indigenous young people, [are] not going into the regular business programs at other schools even at the rates that they are [going] in some of the other programs,” Campbell, director of St. Paul’s Waterloo Indigenous Student Centre, said. “When you talk to these students, they just don’t see themselves as having this inherent connection to business, and so we’re trying to counter that.”

Campbell is working with a team, including JP Gladu, Chancellor of St.-Paul’s University College, to create the Bachelor of Indigenous Entrepreneurship program at St. Paul’s University College. The program will explore business from an Indigenous perspective, using Indigenous philosophies and case studies.

Students will complete two years of study in any Canadian university before transferring to the University of Waterloo (UW) to take business courses. Campbell stated that this would allow students to remain closer to home for the first few years, and help them evaluate how suitable university is for them.

This program will explore aspects of business that are not usually emphasized in mainstream business programs — for example, taxation and doing business on a reserve. Another focus of this program is to help build self-confidence in students, especially in their indigeneity, Campbell stated.

“There’s some really great philosophy and history that are Indigenous-based about engaging in business,” Campbell said. “We’re looking at building [the program] from the inside-out — building a person’s confidence and understanding, and their connection to their own indigeneity and history and context of being engaged in business, and then working out from there.”

“I can’t stress enough the importance of and the value of knowing who you are and being confident in that you have a place and a skillset and an inherent ability to participate in the economy and in any field that’s out there,” Campbell said.

The program will provide students with opportunities for mentorship by Indigenous people in business fields and the possibility of co-op is also being explored. Non-Indigenous students would also be welcomed and encouraged to enroll. Campbell believes that one of the benefits of having this program at UW is increased interaction between Indigenous and non-Indigenous students and faculty.

“One of the benefits is the opportunity to build stronger relationships between Indigenous and non-Indigenous people for students who come into the program,” Campbell said. “I also think that it’s a really good fit for Waterloo because we’re kind of thought of as a university that solves problems, that creates change, that invents things, and is innovative, and I think we can do better at that if we have more Indigenous voices on campus and if we have the opportunity for students to work together.”
Drought is an issue that has plagued Southern Ontario and British Columbia in recent years. This is why the Council of Canadians has been against the major bottled water corporation, Nestlé, and their pumping millions of litres of water from watersheds in Wellington County, Ontario and Hope, British Columbia. The Council of Canadians, a leading social justice organization, has opposed this issue by propagating a petition to “protect water,” and boycott Nestlé.

On their website, they discuss the finity of groundwater resources, which are already greatly impacted by droughts and climate change. They believe, “Water is a human right, commons and a public trust, to be shared, protected, carefully managed and enjoyed by all who live around it – not a source of profit.”

Recent highlights concerning the country’s water extraction practices include Saskatoon pushing the city to examine and limit water bottle usage, a University of Guelph student releasing a thought-provoking piece on the commodification of water, and a poll showing that 82 per cent of Ontarians would like an end to bottled water extraction permits such as the one Nestlé possesses. Subsequently, the Ontario government considered whether to extend their temporary moratorium (issued in 2016) on these permits, which ended on Jan. 1, 2019.

The Council of Canadians then goes on to detail the concept of Blue Communities, an initiative meant to encourage municipalities and Indigenous communities to engage with a water commons framework - a line of thinking centered around the concept that water is a public good for all with passing resolutions, such as recognizing water as a human right and banning or phasing out the sale of public water.

Nestlé’s continual extraction of groundwater is relevant as groundwater, a valuable resource in and of itself, has a significant impact on the quality of surface water. Groundwater, as indicated by the name, is stored underground in rocks and stones known as aquifers. Groundwater is a major source of drinking water for rural communities, supplies the water for irrigation, and replenishes the surrounding lakes, rivers, and wetlands. Reduced quantities of groundwater aquifers often lead to the rising of groundwater to the surface, affecting the life and biodiversity of the surrounding environment due to agricultural runoff and related issues. Furthermore, the depletion of groundwater across the globe has become a significant concern, as groundwater is an important and often unsustainable source of irrigation water in farming and the production of crops.

Nestlé’s unceasing extraction of water, often from Indigenous lands, has left reserves and Indigenous communities without running water and worsened droughts and conditions in rural Ontario and British Columbia. To learn more, go to https://canadians.org/nestle/?page=1.
Research for new chlamydia treatment

Labiba Nahian
Reporter

Sexually transmitted infections (STI) have hit an all-time high in the U.S. and Canada. North Americans are consistently being infected with ailments such as gonorrhea and syphilis.

Dr. Gail Bolan, head of the Centre for Disease Control’s Division of STD Prevention, told NBC News, “Usually there are ebbs and flows, but this sustained increase is very concerning.”

Chlamydia, one of the most prevalent STIs to date, can infect both men and women. If untreated, chlamydia can evolve into increasingly serious issues such as pelvic inflammatory disease and infertility.

Researchers from the University of Waterloo (UW) are developing a treatment for chlamydia that involves gene therapy.

Gene therapy is an experimental technique that uses genes to treat or prevent disease.

In the future, medical practitioners may be able to treat diseases by replacing our inactivating mutated genes instead of using drugs or surgery.

“As antibiotic resistance continues to develop, people may experience chlamydia infections that cannot be treated through conventional means, which is causing increasing public health challenges,” Emmanouel Ho, a professor at UW’s School of Pharmacy said. “We’re able to stop the creation of the protein that chlamydia will use to enter genital tract skin cells. As a result, an incoming infection has fewer targets to latch onto and infection is less likely to occur.”

The treatment works by binding small interfering ribonucleic acid to the genes targeted by viral chlamydia and preventing the spread of the infection at the root.

The new treatment, delivered via nanotechnology, has shown a staggering 65 per cent success rate in preventing chlamydia infection from a single dose and may revolutionize the way doctors treat viral infections.

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The power nap

Many studies show that the power nap is the most effective way to revitalize your brain.

Feeling tired or groggy in the middle of the day? Do you often use coffee, soda, or energy drinks to fight through the fatigue and the dreaded long working hours? It just so happens that the solution may be the very thing you have been trying to avoid in the first place: sleep.

Many studies show that the power nap is the most effective way to revitalize your brain. Understanding the science behind how sleep works will help you nap more effective and be more productive. Sleep occurs in cycles of about 90 to 110 minutes, wherein there are four main stages characterized by different intensities of sleep and brain activities, each lasting between five and fifteen minutes.

The benefits of napping are directly related to the length of time you sleep for and during which sleep cycle you awaken. Naps that are 10-30 minutes in length only allow you to enter the first two stages of sleep, which are stages of light sleep.

In stage one, slow eye movement begins, muscles relax, and brain wave activity begins to slow. But this stage can be easily disrupted. If woken from this stage, you may feel as though you didn’t even fall asleep.

In sleep stage two, your brain begins to inhibit processing, ignoring any external stimuli it deems harmful in an effort to relax you and give you a tranquil sleep.

This stage is where memory consolidation begins, which is the processing of information you learned while awake. Waking out of this stage has been shown to enhance productivity, improve cognitive function, memory, creativity, and most important of all, make you feel less tired.

Past these two stages, it is not beneficial to wake until the sleep cycle is finished.

In stage three and beyond, you begin to experience sleep inertia when awakened.

This is because your body awakens out of deep sleep, where motor dexterity is decreased. Awakened here, you will feel groggy and intensely sleepy.

Many people who deem naps non-beneficial for them are likely napping too long or waking up during a deep sleep stage. If you’re going to take a nap, make sure it is no longer than 30 minutes; otherwise, it may do more harm than good to the rest of your day’s productivity.
Oxygen found in ancient rocks

Rocks that form through sediment can hold clues to the environment they formed in.

Kate Yeadon
Reporter

A research team believes that ancient rocks are the key to understanding Earth’s early history. Researchers from Arizona State University (ASU) believe these rocks provide clues about where and when oxygen started to accumulate.

The oxygen molecule is essential to all life on Earth. These days oxygen is prevalent in Earth’s atmosphere and oceans. However, researchers studying the topic believe that oxygen was scarce for much of Earth’s history.

The study of ancient rocks has already determined that Earth underwent the “Great Oxidation Event” 2.5 to 2.3 billion years ago. Earth’s atmosphere collected oxygen for the first time during this event and has maintained it ever since. The ASU research team led by Chad Ostrander gathered new evidence surrounding the presence of oxygen before the Great Oxidation Event. Their research suggests that large amounts of oxygen were present in oceans before gathering in the atmosphere. Brian Kendall, a geochemistry associate professor from the University of Waterloo, assisted in this research in the role of co-author. The study focused on 2.5 billion-year-old marine sedimentary rock from the Mount McRae Shale in Western Australia. Shale samples taken from the deposit provided a chemical fingerprint of ancient ocean floors. The research team dissolved the rock samples and looked at elements of interest using a mass spectrometer. Results showed that manganese oxide minerals were buried within the shale. This evidence proved that oxygen was present in the sea floor 2.5 billion years ago.

This research contributes to the understanding of Earth’s oxygen history. The findings suggest that oxygen accumulation covered large regions of the ocean, possibly down to the sea floor, before collecting in the atmosphere. Ostrander’s team is now interested in understanding what caused this oxygen build-up. The team plans to focus on this topic for their next research project by targeting ancient bacteria that produced oxygen in oceans.

UW: on the way to zero waste

UW continues zero waste action plan started in 2017

Claris Lam
Reporter

In 2017, the University of Waterloo (UW) committed to become a zero waste campus (90 per cent diversion rate) by 2035. This objective requires updates to the campus’ infrastructure, programs and services to reduce waste generation, and active outreach and training for students, staff, and faculty to take simple but tangible actions each day to join the effort. According to the action plan, Waterloo’s waste audits consistently show that over 80 per cent of all waste currently sent to landfill could be composted or recycled. In order to reach this goal of a 90 per cent diversion rate, the Zero Waste UW Action Plan takes five key approaches to reach this goal:

1. ENGAGE AND TRAIN STUDENTS

Waterloo is expanding programming to ensure students and employees know how to use the systems in place, and that messaging and communication of services is visible and repeated. Engagement and training efforts focus on building knowledge of waste reduction, and reinforcing a culture understanding of its importance.

Some campus initiatives include the Sustainability Certificate, a session dedicated to reducing your material footprint, and Zero Waste Week, where Sort-A-Thon (waste sorting challenge) pop-up booths and other outreach activities to build awareness and knowledge will be available.

2. REDUCE AND ELIMINATE WASTE

Waterloo is advancing initiatives to reduce waste items across campus, including items which are not recyclable or compostable through making it easy to access reusable alternatives to single-use items, or by shifting activity so that waste is not created at all.

One of these campus initiatives include Food Services replacing plastic straws with paper straws at their locations across campus, which can be diverted through our organics collection program (Please note plastic straws will still be available upon request for accessibility). Another initiative Food Services has done is offer a reusable takeout container in residence dining halls. Students can purchase these for $5 and then save 20 cents on every meal they purchase with it. Even better—Food Services will even wash the reusable container for you. Other initiatives also include Lug-a-mug, where you save 20 cents on coffee or tea at all Food Services outlets across campus when you bring your own travel mug. Franchises such as Williams, Starbucks, and Tim Hortons also offer a reusable takeout container.

While on the subject of beverages, Waterloo also has refill stations across campus to make it easy for students and employees to refill reusable bottles. To date, these have eliminated over four million plastic bottles.

3. MAXIMIZE RECYCLING

Waterloo is implementing a universal waste receptacle standard to ensure that bins for common recyclables such as containers and paper are consistent, paired with garbage, and clear sorting instructions. As this expands, Waterloo will balance the level of service for recycling and garbage. Waterloo will also emphasize recycling initiatives for less common items to increase recycling capture rates.

Some of these initiatives include the University developing a new standard for all waste and recycling bins that will be rolled out between 2018 and 2021. Departments can also purchase bins directly to advance the implementation plan. More information on this can be found here: https://uwaterloo.ca/sustainability/sites/ca.sustainability/files/uploads/files/recycling_standard_2018.pdf

Waterloo also has recycling programs for less common items, including batteries, clothing/textiles, e-waste, furniture, hazardous waste, light bulbs, office paper, scrap metal, scrap wood and brush, textbooks, and writing utensils. More information can be found here: https://uwwaterloo.ca/sustainability/projects-and-initiatives/waste/what-you-can-do

4. CAPTURE ORGANICS

Waterloo is expanding its organics collection programs for public use, ensuring that food waste and other compostable items are diverted from the landfill. These are also matched with the recycling program in areas where food is present, such as restaurants and cafeterias, and over time expanding to lunch rooms and lounges. These locations will be updated on the Campus Map in the coming months. Currently across campus, the BMH, CIF, CMH, COM, SPH, DC, DWE, EBC, EV5, E2, E5, E6 E7, FED, GSC, HS, MC, ML, M3, PAC, PHY, REV, SCH, SLC, UC and Vr buildings have organics collections.

There is also a student-led initiative called Campus Compost that collects organic food waste from across campus and processes it in their on-site compost cows. You can also visit the Campus Compost website for a list of drop-off locations across campus.

5. EXPAND REUSE PROGRAMS

Waterloo is developing and enhancing programs promote reusing goods still in working condition or which can be put to beneficial use. This includes programs to extend the life of assets on campus, as well as partnerships with community organizations to repurpose unwanted goods.

Some of these initiatives include Central Stores maintaining a surplus inventory of University furniture, equipment, and supplies. They operate a surplus sale for those assets still in working condition. The Sustainable Campus Initiative also collects used clothing from residences and academic buildings to resell to the campus at affordable prices.

Opinion: Breaking the bicycle theft cycle

Before you go out and get your bicycle tuned up for spring, you might want to consider another form of maintenance: maintaining possession.

“Having a bicycle stolen can be the straw that breaks the camel’s back for some students,” Alan Binns, Director of University of Waterloo Police Services said. “Grades, course work, and other student stressors are difficult as it is, and if suddenly your main mode of transportation is gone...it can be really hard.”

“Bicycle theft is a rising trend on campus, and across the region,” Binns said. Thieves steal expensive bikes to sell for cash. It is ‘cyclical’ as repeat offenders will spend the money — perhaps on drugs, or even paying court fines — and return later to steal another bike to sell. “Bicycles are ‘street-level’ currency,” Sergeant Randy Jardin, who has been part of numerous bicycle theft investigations, said.

In 2018, 76 bicycles were reported stolen from the University of Waterloo (UW) campus. That number is up slightly from the previous year, says Sergeant Jardin.

When thieves are successful, they are motivated to return to the same location. Expensive bikes that aren’t locked up, or are locked with easily-cut cable locks, are perfect targets for thieves. Police are also mindful that Grand River Transit will soon be bringing more traffic to the area.

“By far, the [thieves] we are catching have no affiliation with UW,” says Binns. Binns and Jardin urge students, staff and anyone parking a bicycle on campus, to invest in solid U-type locks.

“We have to make it an inconvenience for thieves,” Binns said. It is generally much less expensive to purchase a lock — even a more expensive U-lock like a Kryptonite lock— than it is to purchase a new bicycle. All riders can take also an active role in protecting themselves from theft, take a few moments to snap a photo of your bike.

If you get a new bike, keep the receipt and take a picture of it too. Record your bike’s serial number, make, and model. You can even register your serial number with campus police.

The UW homepage welcomes visitors with “Waterloo by the numbers” data, with MacLean’s Magazine rankings putting UW as “most innovative university in Canada” for 27 years. Unfortunately, bicycle storage doesn’t seem to be an area that this innovation is applied to.

Given the environmental and health benefits of bicycle transportation, and great access to bicycle paths near campus and within the region, it’s time the UW community thinks about some upgrades. It seems that UW is stationary when it comes to encouraging bike use, and in providing safe and accessible storage.

Placing dozens of steel racks around campus does little more than gather bicycles together in a veritable smorgasbord of loot for thieves to choose from; although those using U-locks at least have bikes to return to at the end of the day.

One of the only efforts at improvement is the grey (or maybe ‘white elephant’) bicycle safe. About CAD$6,000.00 buys one locker, which fits two bicycles. That’s correct: two bicycles that won’t be stolen are safely enclosed in these lockers – which, according to cyclesafe.com, can withstand hurricanes.

Is spending CAD$13,500.00 to protect 4 bicycles reasonable? You don’t need to major in math to figure out that a financial investment of that size could help a larger number of UW bike riders; perhaps even hundreds of our pedal-pushing students, staff and faculty.

Let’s draw on the innovation UW is so famous for. We have incredible minds in every department — we could develop secure and aesthetically pleasing parking areas for bikes. Maybe even have security cameras monitoring fenced-in bicycle parking areas. There are multiple possibilities, such as murals, message boards, or designs unique to each area of campus representing all faculties.

This would be the perfect case study for the School of Planning, or a project for an engineering class. A design competition might be a great challenge or contest, with potential to offer students experience in real-life problem solving and application. Infrastructure for operations could be a partnership with the Feds managing secure bike parking access around campus, perhaps selling key fobs for a controlled entry.

Preventing theft is about decreasing crime and refusing to contribute to the ‘street currency’ of stolen bikes. Keeping bicycles safe from theft is also about supporting those who make financial, environmental, and health-related choices to ride.

Let’s spring ahead and do something to break the bicycle theft cycle.

Find the registration link and more tips for protecting your wheels on the uwwaterloo.ca police website under campus safety: https://uwwaterloo.ca/police/campus-safety/theft-prevention-general-electronic-and-bicycle/bicycles.

Pamela Hopwood

Two CycleSafe bike lockers. Each can fit two bicycles, keeping them locked away safely from thieves.

COURTESY PAMELA HOPWOOD

WRITE FOR SPORTS
Want to go to UW games for Imprint? Talk to players, coaches, and fans!
For more info, email sports@uwimprint.ca.
Free speech on university campuses

In August 2018, the Premier of Ontario, Doug Ford issued a warning to universities and colleges regarding financial penalties for failure to adopt free-speech policies. The policies aim to prevent the obstruction of free speech, where students will be unshielded from all opinions, even unpopular ones. All of the province’s college campuses have already adopted a single free-speech policy, but many universities are slowly dragging behind. This is mostly due to their philosophy on academic freedom. Ontario universities were outraged when Ford’s warning was released, and claim it actually limits freedom of speech by violating the autonomy of the university. They also argued that universities have enough protections already in place, like academic freedom, which allows faculty members to teach and communicate ideas or facts without undue influence. The problem with academic freedom is that it relates to professional academic duties, but it does not apply unconditionally to everyone.

The University of Waterloo has introduced Policy 8 relating to Freedom of Speech, drafted on Dec. 21, 2018. The policy statement ensures that “all members of the university and visitors will respect the rights of others to engage in free speech on university property and at university events without undue interference.”

Consequences for breaches of this policy will be managed according to the university government documents applicable to the conduct of Members of the University (Family Policies such as Policy 33 - Ethical Behaviour, Policy 71 - Student Discipline, etc.). Severe breaching of this policy by visitors will result in visitors being referred to campus police, where they may receive a ban or conditions on their access to the university property and events.

How will Policy 8 affect University of Waterloo students and faculty? The ability to protest a speaker who students feel strongly against is still allowed, given that the protesters do not disrupt the speaker’s ability to talk.

I think this policy will benefit every party involved. We have seen an escalation of violence towards individuals with differing opinions on both sides of the political and ideological spectrum. “Bash the Fash,” and “Send the commies to the gulags,” are violent statements that have been turned into laughable memes. When different sides forgo debate and dialogue, violence seems to be the only option left. The most effective way to bring people to one’s side is to remain calm and argue points efficiently rather than violently with interferers.

We can use Noam Chomsky as a guide to the reason why interfering and trying to shut down discussion on controversial ideas leads to more support for them. A lot of countries in Europe, have Holocaust denial as a crime, while in the United States, they don’t. “The consequences of this is that in the United States, Holocaust denial is almost unknown, there are plenty of tenured professors who have written books about Holocaust denial, but no attention is brought to it. In France and other parts of Europe, it becomes front page news... Some guy does some small marginal thing, and everybody knows about it. It’s a way of getting publicity to Holocaust denial... It’s not the right way to deal with fascist groups, and it gives them an argument; they can claim freedom of speech, which is a value we all share.” Holocaust denial is in the same conspiracy boat as flat earthers or anti-vaxers: they should be treated as ludicrous, absurd ideas.

Given that now we as a community have this protection and ability to speak freely we should use it correctly. Many provocateurs in the political community act as if they are doing the just thing by pushing the boundaries of societal norms, but most of the times this is just a cover to be an arrogant jacka**. Remember to be kind and respectful to others, and be happy that we live in a society that allows freedom of speech and expression. It’s a great privilege but it also bears a lot of responsibility.

Harkirat Sunner
Biotech/CPA, 3B

Free speech on university campuses

The ability to protest a speaker who students feel strongly against is still allowed.
upcoming events

Saturday, March 9
Cambridge Coin Show - 28th Annual Cambridge Coin Show at Cambridge Newfoundland Club, 1500 Dunbar Road, near Highway 24 (Hespeler Road), Cambridge from 9 a.m. to 4 p.m. Buy, sell, trade and evaluate over 50 qualified dealer tables. Admission is free with lots of free parking, lunch counter and wheelchair accessible. For more info coinshow@waterloocoinsoociety.com.

extra curricular

HELP - Looking for a knowledgeable person with experience in cryptocurrencies. Please email Lauretta at lanonby@rogers.com with your name, telephone number, best time to call and desired hourly rate of remuneration. Bit of a time-crunch so asap would be helpful.

Gamelan: World Music Ensembles or Community Gamelan – join for credit or as extra curricular. Fore more information on requirements, rehearsals and concert dates, visit uwaterloo.ca/music/ensembles.

CLASSIFIED


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University Pain Clinic

WANTED: Your Non-working Laptop!

HAILSTORM

TATTOO

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Volunteer at

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opinion * photo * arts

distractions * head designer

graphics editor * video editor

satellite campus editor

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WHAT’S HAPPENING AROUND TOWN

Submit your 30-word announcement or upcoming event to ads@uwimprint.ca for free.
**distractions**

**Chiq and Bake**

Across
1. Training vehicle for children
6. To clean
8. Internet corp. for dial-up internet
9. Renowned for actions or achievements
14. Waterloo’s prototype: ______ II
15. It’s not an F
17. A public speaker
19. Typical Waterloo class gets you 0.5
20. People needed for a baseball team
21. An exit
23. Low and harsh-sounding
25. Wrinkly-faced dog
27. Capital of Mongolia
31. Regurgitated food of a ruminant
32. Augustan poet of Metamorphoses
34. To look or search for
35. Greek goddess of edible bean
36. Disney Channel’s special agent
38. Dirtied or ruined
39. Potato or celery

Down
1. Raven’s father in Teen Titans
2. SNAFU
3. Feline
4. The stuff of legend
5. Biblical priest who raises Samuel
6. To lend money or an object
7. Fungus that raises dough
10. Hairpieces
11. Sarah W. Callies in The Walking Dead
12. Marketing for Google searches (abbrv.)
13. Feeling sorrow and unhappiness
16. To drink through small sips
18. Cereal plant used for bread and whisky
19. Loaf made from cornmeal
22. Cooking apparatus
24. Short for influenza
26. Colored membrane in the eye
28. Trade name of ibuprofen
30. Powdered colours for printers
33. To owe money or an object
34. Wide-spread edible bean

**The Urban Circus**

Although absolutely not necessary, the university finally gave in to Derek’s request to volunteer as a lollipop man in campus along with the cool nickname, ‘Lord of the Ring Road’.
Celebrate Waterloo's art and culture on Mar. 6 at the SLC Great Hall.

The HvZ weeklong event is coming up from Mar. 11-15. Sign up next week at any of the above locations.

“They told me I could be anything, so I became an Ewok!”

RUTH SEWARD-PATTERSON

SUDOKU
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COURTESY WEEBSUDOKU.COM

EM.TZ
That guy the other day who was pulled out from the burning house?

Yeah, what's up with to him?

Turns out a badly put out cigarette was what burnt down his house

Huh, he asked me for a pack today.

PRESENTED BY THE ECLIPICAL SQUIDS