

University of Waterloo
SENATE
Notice of Meeting

Date: Monday 16 May 2022

Time: 3:30 p.m.

Place: Microsoft Teams Videoconference

	OPEN SESSION		PAGE #
3:30	<p><u>Consent Agenda</u> Motion: To approve or receive for information by consent items 1-4 below.</p> <p>1. Minutes of the 18 April 2022 Meeting</p> <p>2. Reports from Committees and Councils</p> <p style="padding-left: 20px;">a. Graduate & Research Council</p> <p style="padding-left: 20px;">b. Honorary Degrees Committee</p> <p style="padding-left: 20px;">c. Senate Undergraduate Council</p> <p>3. Report of the Vice-President, Academic & Provost</p> <p style="padding-left: 20px;">a. University Research Chairs</p> <p>4. Reports from the Faculties</p> <p><u>Regular Agenda</u></p>	<p>Decision</p> <p>Information</p> <p>Information</p> <p>Information</p> <p>Information</p> <p>Information</p>	<p>3</p> <p>9</p> <p>11</p> <p>19</p> <p>21</p> <p>23</p>
3:35	5. Business Arising from the Minutes		
3:40	6. Reports from Committees and Councils		
	a. Graduate & Research Council	Decision	25
	b. Senate Undergraduate Council	Decision	27
3:50	7. Report of the President		
	a. President's Update	Information	33
	b. PART Report	Information	
	c. Sustainability Update (Mat Thijssen)	Information	
4:50	8. Report of the Vice-President, Academic & Provost		
	a. Roster of Graduands	Decision	37
	b. Policy 45 Exception	Decision	39
	c. General Update	Oral	
5:00	9. Report of the Vice-President, Research & International	Oral	41
5:10	10. Other Business		
	CONFIDENTIAL SESSION		
5:15	11. Minutes of the 18 April 2022 Meeting	Decision	7
	12. Business Arising from the Minutes		
	13. Report of the President	Information	
	14. Report of the Dean of Environment Nominating Committee	Decision	47
	15. Other Business		

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University of Waterloo
SENATE
Minutes of the Monday 18 April 2022 Meeting

Present: Jean Andrey, Sandra Banks, Lisa Bauer-Leahy, Michael Beauchemin, Carmen Bruni, Jeff Casello, Trevor Charles, Robyn Clarke, Neil Craik, Lori Curtis, Kristine Dalton, Charmaine Dean, David DeVidi, Nenone Donaldson, Catherine Dong, Benjamin Easton, Paul Fieguth, Cindy Forbes, George Freeman, Martha George, Mark Giesbrecht, Moira Glerum, Vivek Goel (chair), Onurcan Gokkaya, Kelly Grindrod, David Ha, Kevin Hare, Dennis Huber, Karen Jack (secretary), Martin Karsten, Achim Kempf, Jennifer Kieffer, Veronica Kitchen, Alysia Kolentsis, Christiane Lemieux, Robert Lemieux, Lili Liu, Ellen MacEachen, Carol Ann MacGregor, Blake Madill, Peter Meehan, Glaucia Melo, Zoran Miskovic, Nasser Mohieddin Abukhdeir, Graham Murphy, Richard Myers, Beth Namachchivaya, Cathy Newell Kelly, Oudy Noweir, Erin O'Connell, Daniel O'Connor, Troy Osborne, Douglas Peers, Nicholas Pfeifle, Luke Potwarka, William Power, Neil Randall, James Rush, Matthew Schwarze, Siv Sivaloganathan, Siva Sivoththaman, Chao Tan, Bruno Tremblay, Sharon Tucker, Graeme Turner, Diana Vangelisti, Johanna Wandel, Paul Ward, Mary Wells, Stan Woo, Nancy Worth, Clarence Woudsma, En-Hui Yang,

Guests: Jose Arocha, Upkar Arora, Jean Becker, Philip Bingelow, Bruce Campbell, Aldo Caputo, Sam Charles, Lois Claxton, Mario Coniglio, Barbara Forrest, Brian Forrest, Diana Goncalves, Harrington, Sonia Ismail, Narveen Jandu, Ross Johnston, Andrea Kelman, Nick Manning, Ceileigh McAllister, Madisson McKellar, Paul McKone, Norah McRae, Kristiina Montero, Bessma Momani, Urja Nandivada, Fayaz Noormohamed, Urszula Pasterkiewicz, Chris Read, Ian Rowlands, Sanaz Saadatmand Hashemi, Gerry Schneider, Daniela Sesar-Hencic, Justin Shmordok, Marianne Simm, Taydon Sinopoli, Allan Starr, Kerry Stryker, Sherri Sutherland, Brandon Sweet, Christine Tausig Ford, Mathew Thijssen, Sean Thomas, Bryan Tolson, Diane Williams, Annie Yang, Stephanie Ye-Mowe

Absent: John Abraham, Mike Ashmore*, Dominic Barton*, Anne Bordeleau, Joan Coutu, Wendy Fletcher, Natalie Hutchings, Xianguo Li, Kristina Llewellyn, Samantha Meyer, Naima Samuel, Marcus Shantz, Harkirat Singh Dhillon, Samer Zu'Mot

*regrets

OPEN SESSION

CONFLICT OF INTEREST

Senators were asked to declare any conflicts they may have in relation to the items on the agenda; no conflicts were declared.

CHAIR'S REMARKS

The chair acknowledged and thanked departing members for their service: Mike Ashmore, Carmen Bruni, Robyn Clarke, Harkirat Singh Dhillon, Paul Fieguth, Martha George, Zoran Miskovic, William Power, Neil Randall, Bruno Tremblay, Johanna Wandel, Nancy Worth, and Samer Zu'Mot. A round of applause followed.

Consent Agenda

Senate heard a motion to approve or receive for information the items on the consent agenda.

Hare and George.

1. MINUTES OF THE 28 MARCH 2022 MEETING

Senate approved the minutes of the meeting.

2. REPORTS FROM COMMITTEES AND COUNCILS

Senate Graduate & Research Council

Senate received the report for information.

3. REPORTS FROM THE FACULTIES

Senate received the reports for information.

Following confirmation that the report from Senate Graduate & Research Council is for information, the question was called and the motion carried unanimously.

Regular Agenda

4. BUSINESS ARISING FROM THE MINUTES

The chair advised that an update about the Strategic Mandate Agreement will occur in the fall following receipt of comparison data from the province.

5. REPORTS FROM TEACHING AWARDS COMMITTEES

At the chair's invitation, in turn, Jeff Casello and David DeVidi acknowledged the winners, all present, of the Amit & Meena Chakma Awards for Exceptional Teaching by a Student and the Distinguished Teacher Awards (DTA). DeVidi offered his thanks to Mario Coniglio for stepping in as chair of the DTA in his absence. The winners were:

Amit & Meena Chakma for Exceptional Teaching by a Student Committee

- Urszula Pasterkiewicz, PhD Student, Public Health Sciences
- Justin Shmordok, PhD Student, Chemistry
- Sanaz Saadatmand Hashemi, PhD Student, Mechanical and Mechatronics Engineering
- Urja Nandivada, Undergraduate Student, Honours Physics and Astronomy

Distinguished Teacher Awards Committee

- Upkar Arora (School of Accounting and Finance)
- Paul McKone (Department of Knowledge Integration)

The president offered his congratulations to all of the winners and thanked them for their contributions. He also thanked the individuals who nominated them, and the members of the awards committees for their hard work. A round of applause followed.

6. PRESENTATIONS FROM THE PRESIDENTS OF THE FACULTY ASSOCIATION, THE WATERLOO UNDERGRADUATE STUDENT ASSOCIATION, AND THE GRADUATE STUDENT ASSOCIATION

Faculty Association of the University of Waterloo (FAUW). Lori Curtis, president of FAUW provided senators with an update on FAUW, highlighting: what they do, its organizational structure, the Academic Freedom & Tenure Committee, FAUW at Senate, current priorities, ongoing policy work, pandemic matters, and the salary anomaly review. There were no questions.

Waterloo Undergraduate Student Association (WUSA). Benjamin Easton, WUSA president remarked briefly on the report distributed with the agenda and highlighted the WUSA governance review and its process, the new WUSA Board, and the timeline of governance reforms.

In discussion: from a student Senator, that the governance review is not without controversy, and compromises are being discussed, agreement from Easton that organizational change is challenging and that governance improvements will continue; kudos from the Board chair to WUSA for the excellent and informative written report.

Graduate Student Association – University of Waterloo (GSA-UW). Glaucia Melo, president and CEO briefly remarked on the report distributed with the agenda and then spoke to: the services offered by GSA-UW, an overview of the GSA-UW's structure, an overview of some current initiatives, general updates regarding fees, refund programs, and pending personnel changes. There were no questions.

The president offered thanks on Senate's behalf to each of the presidents and the associations for their efforts for their constituencies, and commended the presidents for their adept management of their responsibilities over the past challenging year. A round of applause followed.

7. REPORTS FROM COMMITTEES AND COUNCILS

Executive Committee

Senate heard from the secretary that the deans, the chair of the heads of the affiliated and federated institutions of Waterloo, and the presidents of the Waterloo Undergraduate Student Association and Graduate Student Association have recommended names of nominees as provided on the list of nominees distributed prior to the meeting.

Senate heard an omnibus motion to: acclaim the membership of Senate committees and councils and the Board of Governors as provided on the list of nominees; and to delegate approval to the Executive Committee any vacancies which exist.

The chair asked for further nominations from the floor. No nominations were received. The chair called for a mover and seconder.

Beauchemin and Glerum. With the understanding that all individuals named in the report abstained, the question was called and the motion carried.

The chair notified senators that there will be an electronic election subsequent to the meeting for the faculty representatives on the Board of Governors as there are more nominees than positions available. He invited senators interested in any vacancies to follow up with the Secretariat.

Graduate & Research Council

Program Changes, Faculty of Health

Following a brief introduction from Casello, Senate heard a motion to change the coursework study option degree type/designation from Master of Science (MSc) in Kinesiology to Master of Kinesiology (MKin), effective 1 September 2022, as presented.

Casello and Liu. Carried unanimously.

Dean and Casello informed Senate about Megan Hamilton, a Master's student in history who was just announced as a top 25 finalist in the Social Sciences and Humanities Research Council's Storyteller Challenge. Senators offered congratulations and a round of applause followed.

University Appointments Review Committee

Gerry Schneider, chair of the committee, spoke to the report provided for information with the agenda, and in his presentation, he highlighted data about the proposals reviewed by the committee in 2020-21, gave an overview of the committee's processes and membership, and provided some summary data. In discussion: expressions of thanks to the committee for its ongoing hard work; that information regarding the gender makeup of pools is not tracked at this time, but could be looked into; the need for consideration of best practices for sensitive data collection.

8. REPORT OF THE PRESIDENT

The president remarked on and offered condolences on the passing of former University Librarian, Murray Shepherd. He then spoke to: the University's emergency financial assistance available to those affected by Russia's invasion of Ukraine and other international conflicts; the reading list devised by the Library for those who wish to read more about that particular conflict; some of the education- and research-related provisions in the recent federal budget; the University's commercialization policy framework; the successful recent Waterloo Innovation Summit; work being

done to: identify the next Vice-President, Finance and Administration, and review the Vice-President, Academic & Provost; the ongoing Senate Governance Review by the Executive Committee; the in-person convocation ceremonies in June; coming conversations at the Senate Long Range Planning Committee about the development of a long-term vision for the University; the decision to continue the mask mandate at least through the convocation period.

9. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST

Rush provided Senate with an operational update, including information about: Spring term planning; ongoing health and safety measures; 2022 Spring term enrollments; a Co-op update, including information about employer postings in the Winter term, secured positions for the Spring term, the high student satisfaction rates of the Fall term, excellent satisfaction rates from employers, and kudos to the six co-op student of the year award recipients; the digital learning strategy.

In discussion: that maintaining the requirement for individuals to upload their most up to date vaccination information will help to inform the University's future decision making; agreement that some lead-up time is necessary if the vaccination mandate is reinstated, and that where possible, such decisions will be made on a term by term basis; the excellent uptake of the free cloth masks being made available across the campus; that student representatives on the digital learning strategy working group were identified by the student associations; an expression of concern about some apparent unevenness of examination accommodations for students with COVID, and a description about some of the practices followed when students must miss examinations; that, following discussions at Undergraduate Council and the Undergraduate Student Relations Committee this week about this concern, the Faculty associate deans committed to reminding instructors about the duty to accommodate, and that students who feel they have been treated unfairly may petition decisions; options are being considered with regard to potentially enabling instructors to remove masks in classrooms in a safe, fair, and consistent way.

10. REPORT OF THE VICE-PRESIDENT, RESEARCH & INTERNATIONAL

Dean offered some comments on current research and international matters, including: Mark Servos's and Heather Hall's recent Awards of Excellence from the Minister of Colleges and University in the "Everyday Heroes" category; Linda Nazar's recognition by the Chemical Institute of Canada's E.W.R. Steacie Award; Senator Trevor Charles' receipt of the Research, Innovation and Impact Award at the Black Excellence in Science, Technology, Engineering, Mathematics, Medicine and Health Conference; a pending article in the *Daily Bulletin* about the University's work with Academics Without Borders.

11. OTHER BUSINESS

Following a call for other business, Senator Bruni offered some comments on the occasion of his last meeting. Senators heard: his appreciation for the invigorating discussions at Senate during the last six years; his hope at the start of his service that debate regarding Policy 76 would occur while he was a Senator and his regret that it has not; his concern that the University is losing excellent lecturers and belief that piecemeal policy changes should be pursued to help to mitigate this challenge; his hope that progress will be made in the near future. The chair thanked Bruni for his contributions and service and expressed his hope that a revised policy will be brought forward soon.

Senate convened in confidential session.

22 April 2022

Karen Jack
University Secretary

CONFIDENTIAL SESSION

The Confidential Session minutes have been removed

The meeting was adjourned at 5:52 p.m.

22 April 2022

Karen Jack
University Secretary

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
16 May 2022

Senate Graduate & Research Council met on 11 April 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), to forward the following items to Senate for information as part of the consent agenda.

Further details are available at: <https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council>

FOR INFORMATION

ACADEMIC PROGRAM REVIEWS

On behalf of Senate council approved, as presented:

- Two-Year Progress Report: Biology
- Final Assessment Report: Taxation
- Final Assessment Report: Peace and Conflict Studies

CURRICULAR SUBMISSIONS

On behalf of Senate, council approved new courses, course inactivations, and minor program revisions for the Faculty of Arts (Psychology, Peace and Conflict Studies) and Environment (Collaborative Aeronautics Program).

/mh kw Jeff Casello
Associate Vice-President, Graduate Studies and
Postdoctoral Affairs

Charmaine Dean
Vice-President, Research & International

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2022 SPRING CONVOCATION

List of Honorands with Biographies Attached

HEALTH – Tuesday, 14 June 2022 at 10:00 a.m.

John Hirdes – invited guest speaker (*S*)
Mark Havitz – Distinguished Professor Emeritus
Stuart McGill – Distinguished Professor Emeritus

ENVIRONMENT – Tuesday, 14 June 2022 at 2:30 p.m.

Dianne Saxe – Honorary Doctor of Environmental Studies (*S*)

ARTS – Wednesday, 15 June 2022 at 10:00 a.m.

John Helliwell – Honorary Doctor of Letters (*S*)

ARTS – Wednesday, 15 June 2022 at 2:30 p.m.

Geoffrey Fong – invited guest speaker (*S*)
Alice Kuzniar – Distinguished Professor Emeritus
James Walker – Distinguished Professor Emeritus

ARTS – Wednesday, 15 June 2022 at 6:30 p.m.

Carol Leaman – Honorary Doctor of Letters (*S*)
Sally Gunz – Honorary Member

MATHEMATICS – Thursday, 16 June 2022 at 10:00 a.m.

Tony Chan – Honorary Doctor of Mathematics (*S*)

MATHEMATICS – Thursday, 16 June 2022 at 2:30 p.m.

Mary Thompson – invited guest speaker (*S*)

MATHEMATICS – Thursday, 16 June 2022 at 6:30 p.m.

Ian Goulden – Distinguished Professor Emeritus (*S*)
Katherine Hare – Distinguished Professor Emeritus

SCIENCE – Friday, 17 June 2022 at 10:00 a.m.

Ann and John Heath – Honorary Doctor of Science (*S*)

SCIENCE – Friday, 17 June 2022 at 2:30 p.m.

William Bobier – Distinguished Professor Emeritus (*S*)

ENGINEERING – Friday, 17 June 2022 at 6:30 p.m.

Douglas Fregin – Honorary Doctor of Engineering
Stephan Lambert – invited guest speaker (*S*)

ENGINEERING – Saturday, 18 June 2022 at 10:00 a.m.

Karim Karim – invited guest speaker (*S*)

ENGINEERING – Saturday, 18 June 2022 at 2:30 p.m.

Valerie Davidson – Honorary Doctor of Engineering (*S*)

Raymond Legge – Distinguished Professor Emeritus

Flora Ng – Distinguished Professor Emeritus

ENGINEERING – Saturday, 18 June 2022 at 6:30 p.m.

Paul Fieguth – invited guest speaker (*S*)

Keith Hipel – Distinguished Professor Emeritus

<i>S</i> = speaker

John Hirdes (Invited Guest Speaker, Health)

Dr. Hirdes has been a Faculty member at the University of Waterloo since 1989, currently as a Professor in the School of Public Health Sciences and as a Fellow of the Balsillie School of International Affairs. He is the Senior Canadian Fellow and a Board Member of interRAI (www.interRAI.org), an international consortium of researchers from over 35 countries. He obtained his BSc in Health Studies, a Certificate in Gerontology, MA in Sociology, and PhD in Sociology all from the University of Waterloo. Dr. Hirdes has published over 250 peer-reviewed studies, book chapters, and clinical manuals focusing broadly on health systems and services for vulnerable health populations. He has received numerous awards for his contributions to the fields of aging, mental health, and health information systems as well as his excellence in graduate student mentorship.

Mark Havitz (DPE, Health)

Dr. Mark Havitz was a professor in the Department of Recreation and Leisure Studies from 1992-2019; serving as Department Chair from 2008-2016. He is well known for his work in the theoretical advancement of ego-involvement, psychological commitment and loyalty, and marketing services to marginalized people, as well as his creative autoethnographic accounts and retrospective techniques. He was named a Fellow in the Academy of Leisure Sciences in 2000, received the Theodore and Franklin Roosevelt Award from the National Recreation and Park Association in 2017, and received the Leisure Scholar Award in 2021, the highest recognition bestowed by the Canadian Association of Leisure Studies.

Stuart McGill (DPE, Health)

Dr. Stuart McGill was a professor in the Department of Kinesiology from 1987-2017, serving as Department Chair from 2006-2009. He is internationally regarded for his work in spine biomechanics, investigating mechanisms of low-back injury and how to prevent and rehabilitate low-back pain and optimize performance. He has published over 250 scientific papers and 5 books, mentored over 40 graduate students, and taught thousands of clinicians and practitioners in courses and workshops around the world. Dr. McGill is the Chief Scientific Officer for Backfitpro Inc. and was named a member of the Order of Canada in 2020.

Dianne Saxe (DES, Environment)

Dr. Dianne Saxe is of Canada's leading environmental lawyers. She has made important contributions to Ontario as a leading practitioner of environmental law for over 45 years, as an influential author of key environmental law books and articles, and, most recently, as the Environmental Commissioner of

Ontario. In these roles, Dr. Saxe has engaged and informed Ontarians of their environmental rights and duties, and of the crucial importance of addressing environmental challenges. Dr. Saxe has made a significant contribution to the public life of Ontarians in her role as the Environmental Commissioner of Ontario, contributing extensive analysis of the government's commitments to protect the environment, as well as leading public conversations on identifying the best path forward for Ontario's sustainable future.

John Helliwell (DLitt, Arts)

John Helliwell, acclaimed for his pioneering and prolific work in macro-economic modeling, energy economics and policy, and global trade flows, is also well-known for his contributions to the annual World Happiness Report, a United Nations publication that ranks countries according to national well-being. The Report has been influential in encouraging governments worldwide to think beyond the narrow confines of gross national product and per capita income as they develop policies and strive towards sustainable development. Helliwell's excellence has been recognized with honours that include Fellow of the Royal Society of Canada, Distinguished Fellow of the Canadian Institute for Advanced Research, and Officer of the Order of Canada.

Geoffrey Fong (Invited Guest Speaker, Arts)

Geoffrey Fong is renowned internationally for his pioneering research on population health and his leadership as founder and chief principal investigator of the International Tobacco Control Policy Evaluation (ITC) Project – a project involving over 150 researchers across 31 countries. His contributions to reducing the global tobacco epidemic include research on improved risk messaging on tobacco products alongside his work with international governments to adopt national tobacco-reduction policies and practices. One of the top-cited researchers in the world, Fong has been recognized with honours that include Fellow of the Royal Society of Canada, O. Harold Warwick Prize, the Governor General's Innovation Award (ITC Project), and Officer of the Order of Canada.

Alice Kuzniar (DPE, Arts)

Alice Kuzniar is one of the leading figures in German Studies today, well known for her scholarly work in the earlier periods of German literary history, especially German classicism and romanticism. She is a noted film scholar, both in German-language film and world cinema. She is also well known for being a leading thinker in field of cultural studies, producing ground-breaking work in the areas of gender and queer studies as well as animal studies. Her contributions have been recognized with a University Research Chair, two Alexander von Humboldt Fellowships, two Outstanding Performance Awards from the Faculty of Arts, and the Excellence in Arts Research Award.

James Walker (DPE, Arts)

James W. St.G. Walker has been widely recognized for his pioneering work in African-Canadian history, human rights, Holocaust studies, race relations, Indigenous history, and antisemitism, as well as immigration and other Canadian public policies. His publications have been widely recognized and his book "The Black Loyalists" was republished in 2017 by University of Toronto Press as part of the Canada 150 Collection, a collection of outstanding books that have shaped Canada as a nation. Walker's contributions to Canadian society have been recognized with honours that include the Bora Laskin National Fellowship in Human Rights Research, Fellow of the Royal Society of Canada, and Member of the Order of Canada.

Carol Leaman (DLitt, Arts)

Carol Leaman holds a Master of Accounting Degree as well a Bachelor of Arts Degree in Economics and Accounting from the University of Waterloo. In 2013, she received the prestigious designation as a Fellow of Chartered Professional Accountants (FCPA). Leaman is a visionary, serial entrepreneur, and community leader who personifies the Waterloo spirit of innovation and is committed to creating work environments that foster the success of their employees. Leaman has been appointed as CEO and has seen the successful acquisition of numerous companies such as Fakespace (acquired by Mechdyne Corporation), RSS Solutions (acquired by Visiprise Inc.), PostRank (acquired by Google), and Axonify (recently acquired Atlanta-based MLevel), where she remains as CEO.

Sally Gunz (HM, Arts)

Sally Gunz is recognized for her teaching and research excellence in legal studies and ethical responsibilities for professionals. Gunz also exemplifies exceptional service through her work with the Faculty Association (FAUW) and her contributions to institutional policy development. Service contributions include President and Past President of FAUW, Chair of the Academic Freedom and Tenure Committee, and President and Former President of the Canadian Academy of Legal Studies in Business. Honours and awards received in recognition of her excellence include the University of Waterloo Outstanding Performance Award, the Canadian Association of University Teachers Dedicated Service Award, and the Academy of Legal Studies in Business Kay Duffy Memorial Award.

Tony Chan (DMath, Mathematics)

Professor Tony Chan is an esteemed leader in computational models and algorithms for image processing. He received his Ph.D. in Computer Science from Stanford University, followed by a Research Fellowship at Caltech. He holds an Honorary Doctorate from the University of Strathclyde. He is a member of US National Academy of Engineering, a Fellow of Institute of Electrical and Electronics Engineers (IEEE), American Association for the Advancement of Science (AAAS) and Society for Industrial and Applied Mathematics (SIAM). He was awarded the 2020 SIAM Prize for Distinguished Service to the Profession. In 2018, he assumed his role as the third president of King Abdullah University of Science and Technology after nearly a decade as president of The Hong Kong University of Science and Technology.

Mary Thompson (Invited Guest Speaker, Mathematics)

Mary E. Thompson is Distinguished Professor Emerita of Statistics at the University of Waterloo in Waterloo. She holds a B.Sc. from the University of Toronto, and an M.S. and Ph.D. from the University of Illinois. She was a founding Co-Director of the University of Waterloo Survey Research Centre, and Director of the Data Management Core for the International Tobacco Control (ITC) Policy Evaluation Project. Thompson was elected as a Fellow of the American Statistical Association in 1985, and of the Royal Society of Canada in 2006. She is also an elected member of the International Statistical Institute and a Fellow of the Institute of Mathematical Statistics. She won the Waksberg Award of Survey Methodology in 2008.

Ian Goulden (DPE, Mathematics)

Professor Ian Goulden received his PhD in Statistics from the University of Waterloo in 1979. He joined UW's Department of Combinatorics & Optimization in 1980, and was promoted to Full Professor in 1990. He retired from the university in 2019. Goulden is a leader in the field of Enumerative Combinatorics, and co-authored the influential textbook *Combinatorial Enumeration* with

David Jackson. In 2010, he was elected as a Fellow of the Royal Society of Canada. Goulden is an exceptional teacher, and received the Faculty of Mathematics Award for Distinction in Teaching in 2009. He is an accomplished administrator who served three terms as Chair of Combinatorics & Optimization, and one term as Dean of the Faculty of Mathematics.

Katherine Hare (DPE, Mathematics)

Professor Kathryn Hare retired from the Pure Mathematics Department in July 2021, after joining in 1988 as the first female professor. She has an extensive research portfolio on harmonic analysis, fractals, thin sets and multipliers and maximal operators. She has supervised dozens of postdoctoral, PhD and master's students, many of whom earned prizes for research excellence, including a Morgan Prize winner, and an AIM Fellowship winner. Kathryn is a Fellow of the Canadian Mathematical Society, received an honorary doctorate from Chalmers University, and the Faculty of Mathematics Award for Distinction in Teaching. Kathryn tirelessly served the university and the academy more broadly, notably as department chair from 2014 to 2018.

Ann and John Heath (DSc, Science)

Dr Ann Heath completed a BSc degree at UBC, and Dr John Heath completed his BSc at McGill. Both then completed MScs and MDs in clinical medicine at McGill. After postgraduate medical training in Halifax, Winnipeg, and Vancouver they set up a practice in Campbell River B.C and participated in many clinical research studies. In 1985 they established Yellow Island Aquaculture on Quadra Island B.C., which quickly became a centre for aquaculture research, with numerous publications, including contributions in Nature and Science. They received the 2012 NSERC Synergy award for collaborative research and they have hosted numerous Waterloo students.

William Bobier (DPE, Science)

Professor Bobier completed his BSc degree at Queen's University and then an Optometry degree at the University of Waterloo. After one year of private practice in Optometry, he returned to Waterloo and completed his MSc. He then moved to the University of Cambridge for his PhD. He joined the School of Optometry and Vision Science at the University of Waterloo as a faculty member in 1987 and rose to become Director. Professor Bobier retired in December of 2019 after a distinguished 29-year career within the School. He remains active in research and graduate student supervision.

Douglas Fregin (DEng, Engineering)

Douglas Fregin has been a leading figure in the telecommunications industry for over 35 years. He co-founded Research In Motion (RIM) in 1984. As Vice President Hardware Design and later as Director of RIM he helped launch the world's first smartphone (the BlackBerry 5180). He later co-founded Quantum Valley Investments (2013), driving Waterloo region to the forefront of the global quantum technologies industry. Over the last twenty years, he has donated millions towards educational and research programs at Waterloo. His support was pivotal to establishing the Waterloo Undergraduate Program in Nanotechnology (2005), the Waterloo Institute of Nanotechnology (2009), and the Mike & Ophelia Quantum-Nano Centre (2012). In recognition of his achievements, he was awarded the Queen's II Diamond Jubilee Medal and a Technical Emmy with Kodak and the National Film Board of Canada. In 2016, he was appointed a Member of the Order of Canada.

Stephan Lambert (Invited Guest Speaker, Engineering)

Professor Stephan Lambert completed his undergraduate degree in Mechanical Engineering at the University of Waterloo in 1982, received his master's degree from Queen's University in 1984, and returned to Waterloo to complete his doctorate. He joined Waterloo's Mechanical and Mechatronics Engineering Department as an Assistant Professor in 1988. For 15 years, his group developed models to predict and ultimately reduce fatigue, fracture, and stress corrosion cracking in Canadian pipeline infrastructure. His recent work has advanced the design of load-bearing automotive components using forged magnesium alloys. He was the Design Processes Theme Lead within the AUTO21 Network of Centres of Excellence (2004-2015), the Waterloo-NSERC Chair in Design Engineering (2004-2016), and the Canadian Task Leader for Fatigue in the Magnesium Front End Research and Development Project (2006-2012). He has been the Faculty Advisor for Waterloo's Formula Motorsports team since 1996.

Karim Karim (Invited Guest Speaker, Engineering)

Karim S. Karim received his BSc in Computer Engineering in 1999 and his PhD in Electrical Engineering in 2002, both from the University of Waterloo. He was briefly an Assistant Professor at Simon Fraser University before returning to Waterloo in 2008, where he is a Professor in the Department of Electrical and Computer Engineering and Associate Vice President, Commercialization and Entrepreneurship. Professor Karim has published over 100 journal articles, 150 conference papers, and has 80 patents related to large-area electronics and digital X-ray imaging solutions. He co-founded KA Imaging in 2015, which commercialized the world's first portable large area spectral X-ray detector. The product was recently endorsed by the World Health Organization for developing countries. Professor Karim is a Fellow of the Engineering Institute of Canada and the Canadian Academy of Engineering.

Valerie Davidson (DEng, Engineering)

Valerie Davidson is a Professor Emerita in the University of Guelph's School of Engineering, where she was a faculty member for 24 years. During this time, she developed innovative courses in bio-process and food engineering and was a recipient of the Provost's Award for Innovation in teaching. Her group developed ground-breaking, fundamentals-based, engineering models of complex food processing systems to improve product quality and safety. She recently consulted for the United Nations Food and Agriculture Organization to develop tools for food safety decision-making. For over three decades, Professor Davidson has been an exceptional citizen within the engineering community and a dedicated champion of diversity in the profession. While serving as NSERC Chair for Women in Science and Engineering, she founded the Ontario Network of Women in Engineering (ONWiE), now a pan-Canadian collaboration that inspires the next generation of engineers. In 2016, she received the Ontario Professional Engineers' Award for Citizenship.

Raymond Legge (DPE, Engineering)

Raymond Legge's record of scholarship, teaching, and service to the Department of Chemical Engineering and the University of Waterloo is exemplary and extends over 37 years. He has made ground-breaking contributions to the development of biosensors, environmental monitoring and remediation, green bioprocesses, and water treatment and monitoring. Deeply committed to improving engineering education, he has served on over 50 committees within his department and across the university, including several undergraduate task forces. In his roles as Associate Chair, Associate Dean, and Assistant Vice-President, Graduate Studies he has helped shape the engineering curriculum

and elevate Waterloo to one of the most prominent engineering schools in the world. During his career he taught over 7000 students and received the Sandford Fleming Foundation Teaching Excellence Award on two occasions.

Flora Ng (DPE, Engineering)

Flora Ng joined the University of Waterloo's Department of Chemical Engineering in 1987 following nearly a decade working for Canada Centre for Mineral and Energy Technology (CANMET), where she rose to Assistant Director, Research Programs. At Waterloo, her group is internationally recognized for innovation in catalytic distillation and "green" chemistry. She has co-authored over 250 journal and conference papers, delivered over 100 invited talks, and supervised over 140 undergraduate and graduate students. She held a University Research Chair from 2006 to 2013 and was appointed a University Professor – Waterloo's highest academic honour – in 2008. Professor Ng is a former President of the Canadian Catalysis Foundation and a Fellow of both the Chemical Institute of Canada (CIC) and the Royal Society of Canada.

Paul Fieguth (Invited Guest Speaker, Engineering)

Paul Fieguth received his undergraduate degree in Electrical Engineering from the University of Waterloo and graduate engineering degrees from the Massachusetts Institute of Technology (MIT). He joined Waterloo's Department of Systems Design Engineering in 1996, where he has been Associate Chair for Undergraduate Studies and Department Chair. Presently he is Associate Dean for Resources and Planning. As co-Director of the Vision and Image Processing Lab, he has contributed major advances to statistical signal and image processing, hierarchical algorithms, data fusion, machine learning, and the interdisciplinary applications of such methods. As an educator, he has helped develop a deep understanding among engineering students on the impact of complex systems in many areas of engineering decision making. He is the author three textbooks, a 2010 text on Statistical Image Processing & Multidimensional Modeling, a 2021 text on Complex Systems, and an upcoming text on Pattern Recognition.

Keith Hipel (DPE, Engineering)

In his over 40 years at the University of Waterloo, Professor Keith Hipel has established a distinguished record of scholarship, teaching, and service. He is an international authority in the field of environmental systems engineering, with profound impacts on the management of water, energy, and natural resources. His contributions to engineering education include co-supervision of 87 graduate students, founding three highly successful exchange programs with leading universities in Japan, and serving as Chair of the Board of Governors of Renison University College. He has received 67 national and international honours, including election to Officer of the Order of Canada, President of the Academy of Science within the Royal Society of Canada, Fellow of the Canadian Academy of Engineering, international Member of the US National Academy of Engineering and Killam Prize Laureate.

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
16 May 2022

Senate Undergraduate Council met on 12 April 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 5.03) to forward the following items to Senate for information in the consent agenda.

Further details are available at: uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council

FOR INFORMATION

ACADEMIC PROGRAM REVIEWS

Council reviewed and approved the following reports on behalf of Senate:

- Final Assessment Report (FAR) Human Sciences [[Appendix 1](#)]
- Two-Year Progress Report (PR) English Language Studies [[Appendix 2](#)]
- PR English Language Institute [[Appendix 3](#)]
- PR Italian Studies [[Appendix 4](#)]
- PR General and Honours Science [[Appendix 5](#)]

MINOR PLAN & CURRICULAR MODIFICATIONS

Council approved the following on behalf of Senate:

- minor plan changes for the Faculty of Arts (classical studies, philosophy, Renison university college, St. Paul's university college); Faculty of Health (school of public health sciences); Faculty of Mathematics (combinatorics and optimization minor, mathematics/financial analysis and risk management plan milestone notes); Sustainable and Financial Management.
- new courses for the Faculty of Arts (accounting and finance, dean of arts, Renison university college, sociology and legal studies); Faculty of Mathematics (applied mathematics).
- course changes for the Faculty of Arts (accounting and finance, anthropology, dean of arts, Conrad Grebel university college, English language and literature, fine arts, Germanic and Slavic studies, history, philosophy, political science, Renison university college, religious studies, sociology and legal studies, Spanish and Latin American studies); Faculty of Health (kinesiology and health sciences); Faculty of Mathematics (applied mathematics, combinatorics and optimization, computer science, dean of mathematics, pure mathematics); Faculty of Science (pharmacy); Renison University College (social work - bachelor of).
- course inactivations for the Faculty of Arts (accounting and finance, English language and literature, Renison university college), Faculty of Science (pharmacy).

/twk

David DeVidi
Associate Vice-President, Academic

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UNIVERSITY OF WATERLOO
SENATE
Report of the Vice-President Academic & Provost
May 16, 2022

FOR INFORMATION

UNIVERSITY RESEARCH CHAIRS

The 2022 University Research Chairs are **Dustin Garrick** (environment, resources and sustainability), **Suzan Ilcan** (sociology & legal studies), **Monica Maly** (kinesiology and health sciences), **Christine Muschik** (physics & astronomy), **William Slofstra** (pure mathematics), **Chaitanya Swamy** (combinatorics & optimization), **Ben Thompson** (optometry & vision science), **Evelyn Yim** (chemical engineering) and **Aiping Yu** (chemical engineering).

Since 2004, Waterloo has granted 123 University Research Chair awards, including this year's recipients.

University of Waterloo owes much of its reputation and stature to the quality of its professors and their scholarly accomplishments. University of Waterloo recognizes exceptional achievement and pre-eminence in a particular field of knowledge through the designation 'University Research Chair'.

In addition, a faculty member at the conclusion of the second term as a Tier I Canada Research Chair may also be considered for a University Research Chair.

More information can be found on the URC website:
<https://uwaterloo.ca/provost/university-research-chairs>

James W.E. Rush
Vice-President Academic & Provost

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University of Waterloo
REPORT TO SENATE FROM THE FACULTIES
16 May 2022

FOR INFORMATION

The Faculty Reports for Senators' information regarding the variety of appointments, reappointments, special appointments, leaves, and other matters of interest about individuals in the Faculties are available at the [Senate agenda page](#)¹.

¹

https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/may_2022_all_faculty_senate_report.pdf

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
16 May 2022

Senate Graduate & Research Council met on 11 April 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), to forward the following item to Senate for approval as part of the regular agenda.

Further details are available at: <https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council>

FOR APPROVAL

PROGRAM CHANGES

1. **Motion:** To approve the following Faculties joining the Collaborative Aeronautics Program (CAP), effective 1 September 2022, as presented:
 - Arts and Environment: Master of Arts in Global Governance – Aeronautics.
 - Environment: Master of Environmental Studies in Sustainability Management – Aeronautics; Doctor of Philosophy in Sustainability Management – Aeronautics; Master of Arts in Planning – Aeronautics; Master of Environmental Studies in Planning – Aeronautics
 - Engineering: Doctor of Philosophy in Systems Design Engineering – Aeronautics; Master of Applied Science in Systems Design Engineering – Aeronautics.
 - Science: Master of Science in Vision Science – Aeronautics; Doctor of Philosophy in Vision Science – Aeronautics.
 - Arts: Master of Arts in Psychology – Aeronautics.

Rationale: Faculty research programs at the University of Waterloo are joining CAP—coupling their disciplinary expertise with a foundation understanding of aeronautics—as an additional offering to their existing and future thesis or major research paper-based Master’s and PhD students. Participation requires the development of an academic plan that results in the CAP designation for students. The creation of the plan involves articulating the curricular elements including common curricular elements across the CAP, specifying research milestones, and ensuring other academic requirements result in the students achieving the desired collaborative program learning outcomes.

/mh kw Jeff Casello
Associate Vice-President, Graduate Studies and
Postdoctoral Affairs

Charmaine Dean
Vice-President, Research & International

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
16 May 2022

Senate Undergraduate Council met on 12 April 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 5.03) to forward the following items to Senate for approval in the regular agenda.

Further details are available: uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council

FOR APPROVAL

NEW ACADEMIC PLANS

Faculty of Arts
English Language and Literature

1. **Motion:** That Senate approve the proposed English – Creative and Professional Writing program, as outlined below, effective 1 September 2023.

Background and Rationale: Creative writing is one of the fastest-growing areas in English in terms of both student demand and faculty strength. This new plan meets this growing student demand for creative writing programs and is unique in Ontario. While students hone their creative writing skills and pursue literary study, they also acquire skills in editing, communication design, and professional writing, resulting in a program that enables students to do what they love and equips them for the professional writing careers that aspiring writers often seek out in editing, technical writing, publishing, textual design, and marketing. The unique skill set offered by this plan has potential to attract a new kind of student to the University of Waterloo. English is well-positioned to offer this plan with several full-time faculty prepared to teach creative writing, as well as strong support from instructors at St. Jerome's University.

The English - Creative and Professional Writing program is distinct from existing English Plans. It is distinct from the Rhetoric plans (Rhetoric, Media, and Professional Communication; Literature and Rhetoric) in its emphasis on and integration of professional and creative writing practice. Creative writing is not rhetoric. If rhetoric is the study of persuasion in all its forms, creative writing is the applied study of the imagination as it is transformed by words and text into art. CPW is also distinct from Literature Plans (Literature; Literature and Rhetoric): Literary study is integral to the study of creative writing, but whereas Literature plans teach the full range of English literary history, the English – Creative and Professional Writing program focusses on mobilizing literary study as a resource for creative practice. If RMPC is an applied rhetoric degree, CPW is an applied literary degree. At this point a four-year General and a four-Year Honours plan are being introduced. A three-year General plan is in development and will be put forward at the Fall 2022 UGAG.

Plan Title(s): Honours English – Creative and Professional Writing
New Plan Requirements (calendar text):

Continuation in this academic plan requires a cumulative minimum overall average of 60% and a cumulative minimum English major average of 70%.

Eligibility for graduation in the Honours English – Creative and Professional Writing academic plan includes successful completion of the following requirements:

- Appropriate program-level requirements. See Bachelor of Arts Degree Requirements.
- English plan-level requirements:
 - a minimum English major average of 70%
 - at least eight academic course units (16 courses) in English, including:
 - two ENGL courses at the 100-level (see Note 1)
 - Advanced Introduction to Literature: one of ENGL 200A, ENGL 200B, ENGL 200C
 - Criticism: ENGL 251, ENGL 292
 - Genre and Literature: one of ENGL 201, ENGL 205R, ENGL 206, ENGL 208A, ENGL 208B, ENGL 208C, ENGL 208G, ENGL 208K, ENGL 208M, ENGL 211/GSJ 211, ENGL 217, ENGL 275, ENGL 280, ENGL 294
 - Creative Writing: three of ENGL 210C, ENGL 332, ENGL 335, ENGL 336, ENGL 373/BLKST 308
 - Writing Across Modes: one of ENGL 210F, ENGL 210G, ENGL 210H, ENGL 210I/LS 291, ENGL 225/BLKST 203, ENGL 295, ENGL 309E/SPCOM 323, ENGL 408A, ENGL 408B, ENGL 471
 - Editing: one of ENGL 210J, ENGL 371
 - Communication Design: one of ENGL 392A, ENGL 392B, ENGL 408C, ENGL 493
 - Literature: two of ENGL 305A, ENGL 305B, ENGL 308/GSJ 307, ENGL 310A, ENGL 310B, ENGL 313, ENGL 315, ENGL 316, ENGL 318, ENGL 322, ENGL 324, ENGL 325, ENGL 326/BLKST 210, ENGL 327/BLKST 240, ENGL 328/BLKST 244, ENGL 330A, ENGL 330B, ENGL 342, ENGL 343, ENGL 344, ENGL 345, ENGL 346, ENGL 346R/EASIA 346R, ENGL 347, ENGL 348, ENGL 350A, ENGL 350B, ENGL 361, ENGL 362/THPERF 386, ENGL 363/THPERF 387, ENGL 364, ENGL 410/GSJ 410, ENGL 411, ENGL 412, ENGL 425, ENGL 430A, ENGL 430B, ENGL 451A, ENGL 451B, ENGL 460A, ENGL 460B, ENGL 460C, ENGL 460D, ENGL 463/GSJ 463, ENGL 470A, ENGL 471, ENGL 484, ENGL 485, ENGL 486, ENGL 491
 - Special Topics: one of ENGL 332, ENGL 481, ENGL 484, ENGL 485, ENGL 486, ENGL 491, ENGL 492, ENGL 493, ENGL 494
 - Elective: one additional ENGL course at the 200-level or above

Notes:

1. Students may use only two English courses at the 100-level to fulfil English plan requirements; additional 100-level ENGL courses may count as degree electives. Courses transferred from other institutions without a specific course designation (e.g., ENGL 1XX) may only be counted towards the English electives.
2. Although the Department of English Language and Literature provides advisors to help students choose their academic plans, arrange their courses, and conform with the University of Waterloo, Faculty of Arts, and Department regulations, students are urged to study the Undergraduate Calendar very carefully because they are themselves responsible for failure to abide by these regulations.
3. No one course may fulfil more than one requirement within this plan.

Plan Title(s): Four-Year General English – Creative and Professional Writing
New Plan Requirements (calendar text):

Continuation in this academic plan requires a cumulative minimum overall average of 60% and a cumulative minimum English major average of 65%.

Eligibility for graduation in the Four-Year General English – Creative and Professional Writing academic plan includes successful completion of the following requirements:

- Appropriate program-level requirements. See Bachelor of Arts Degree Requirements.
- English plan-level requirements:
- a minimum English major average of 65%
- at least eight academic course units (16 courses) in English, including:
 - two ENGL courses at the 100-level (see Note 1)
 - Advanced Introduction to Literature: one of ENGL 200A, ENGL 200B, ENGL 200C
 - Criticism: ENGL 251, ENGL 292
 - Genre and Literature: one of ENGL 201, ENGL 205R, ENGL 206, ENGL 208A, ENGL 208B, ENGL 208C, ENGL 208G, ENGL 208K, ENGL 208M, ENGL 211/GSJ 211, ENGL 217, ENGL 275, ENGL 280, ENGL 294
 - Creative Writing: three of ENGL 210C, ENGL 332, ENGL 335, ENGL 336, ENGL 373/BLKST 308
 - Writing Across Modes: one of ENGL 210F, ENGL 210G, ENGL 210H, ENGL 210I/LS 291, ENGL 225/BLKST 203, ENGL 295, ENGL 309E/SPCOM 323, ENGL 408A, ENGL 408B, ENGL 471
 - Editing: one of ENGL 210J, ENGL 371
 - Communication Design: one of ENGL 392A, ENGL 392B, ENGL 408C, ENGL 493
 - Literature: two of ENGL 305A, ENGL 305B, ENGL 308/GSJ 307, ENGL 310A, ENGL 310B, ENGL 313, ENGL 315, ENGL 316, ENGL 318, ENGL 322, ENGL 324, ENGL 325, ENGL 326/BLKST 210, ENGL 327/BLKST 240, ENGL 328/BLKST 244, ENGL 330A, ENGL 330B, ENGL 342, ENGL 343, ENGL 344, ENGL 345, ENGL 346, ENGL 346R/EASIA 346R, ENGL 347, ENGL 348, ENGL 350A, ENGL 350B, ENGL 361, ENGL 362/THPERF 386, ENGL 363/THPERF 387, ENGL 364, ENGL 410/GSJ 410, ENGL 411, ENGL 412, ENGL 425, ENGL 430A, ENGL 430B, ENGL 451A, ENGL 451B, ENGL 460A, ENGL 460B, ENGL 460C, ENGL 460D, ENGL 463/GSJ 463, ENGL 470A, ENGL 471, ENGL 484, ENGL 485, ENGL 486, ENGL 491
 - Special Topics: one of ENGL 332, ENGL 481, ENGL 484, ENGL 485, ENGL 486, ENGL 491, ENGL 492, ENGL 493, ENGL 494
 - Elective: one additional ENGL course at the 200-level or above

Notes

1. Students may use only two English courses at the 100-level to fulfil English plan requirements; additional 100-level ENGL courses may count as degree electives. Courses transferred from other institutions without a specific course designation (e.g., ENGL 1XX) may only be counted towards the English electives.
2. Although the Department of English Language and Literature provides advisors to help students choose their academic plans, arrange their courses, and conform with the University of Waterloo, Faculty of Arts, and Department regulations, students are urged to study the Undergraduate Calendar very carefully because they are themselves responsible for failure to abide by these regulations.
3. No one course may fulfil more than one requirement within this plan.

List of Courses Included in CPW Plans:

ENGL MAJOR CORE

ENGL 200A – English Literatures 1
ENGL 200B – English Literatures 2
ENGL 200C – English Literatures 3
ENGL 251 – Literary Theory and Criticism
ENGL 292 – Rhetorical Theory and Criticism

GENRE AND LITERATURE

ENGL 201 – The Short Story
ENGL 205R – The Canadian Short Story
ENGL 206 – Writing Lives
ENGL 208A – Forms of Fantasy
ENGL 208B – Science Fiction
ENGL 208C – Studies in Children’s Literature
ENGL 208G – Gothic Monsters
ENGL 208K- Detective Fiction
ENGL 208M – Travel Literature
ENGL 211/GSJ 211 – First Nations, Metis, and Inuit Literatures
ENGL 217 – Canadian Children’s Literature
ENGL 275 – Fiction and Film
ENGL 280 – Literatures of Migration
ENGL 294 – Introduction to Critical Game Studies

CREATIVE WRITING

ENGL 210C – Genres of Creative Writing
ENGL 332 – Topics in Creative Writing
ENGL 335 – Creative Writing 1
ENGL 336 – Creative Writing 2
ENGL 373/BLKST 308 – Writing Anti-Racism

WRITING ACROSS MODES

ENGL 210F – Genre of Business Communication
ENGL 210G – Grant Writing
ENGL 210H – Arts Writing
ENGL 210I/LS 291 – Legal Writing
ENGL 225/BLKST 203 – Introduction to Antiracist Communication
ENGL 295 – Social Media
ENGL 309E/SPCOM 323 – Speech Writing
ENGL 408A – Writing for the Media
ENGL 408B – The Discourse of Advertising
ENGL 471 – Adapting Literary Works

EDITING

ENGL 210J – Technical Editing
ENGL 371 – Editing Literary Works

COMMUNICATION DESIGN

ENGL 392A – Information Design

ENGL 392B – Visual Rhetoric
ENGL 408C – The Rhetoric of Digital Design: Theory and Practice
ENGL 493 – Topics in Professional Writing and Communication Design

LITERATURE

ENGL 305A – Old English Language and Literature
ENGL 305B – The Age of Beowulf
ENGL 308/GSJ 307 – Race and Resistance
ENGL 310A – ~~Chaucer 1~~ **Middle English Literature**
ENGL 310B – Chaucer 2
ENGL 313 – Early Canadian Literature
ENGL 315 – Modern Canadian Literature
ENGL 316 – Canadian Drama
ENGL 318 – Contemporary Canadian Literature
ENGL 322 – Postcolonial Literature of the Americas
ENGL 324 – Modern and Contemporary American Drama
ENGL 325 - Austen
ENGL 326/BLKST 210 - Language, Life, and Literature in the Caribbean
ENGL 327/BLKST 240 - Black Diasporic Lives: 1740-1900
ENGL 328/BLKST 244 - Introduction to Black Canadian Writing
ENGL 330A – Sixteenth-Century Literature 1
ENGL 330B – Sixteenth-Century Literature 2
ENGL 342 – American Literature to 1860
ENGL 343 – American Literature 1860-1910
ENGL 344 – Modern American Literature
ENGL 345 – American Literature in a Global Context
ENGL 346 – American Fiction
ENGL 346R/EASIA 346R – Global Asian Diasporas
ENGL 347 – American Literature Since 1945
ENGL 348 – American Poetry Since 1850
ENGL 350A – Seventeenth-Century Literature 1
ENGL 350B – Seventeenth-Century Literature 2
ENGL 361 – Early Modern Worlds on Stage
ENGL 362/THPERF 386 – Shakespeare 1
ENGL 363/THPERF 387 – Shakespeare 2
ENGL 364 – Shakespeare in Performance at The Stratford Festival
ENGL 410/GSJ 410 – Eighteenth-Century Women Writers
ENGL 411 – Eighteenth-Century Literature: Sex, Satire, and Sentiment
ENGL 412 – Eighteenth-Century Literature and Media
ENGL 425 – Transnational Feminisms and Contemporary Narratives
ENGL 430A – Literature of the Romantic Period 1
ENGL 430B – Literature of the Romantic Period 2
ENGL 451A – Literature of the Victorian Age 1
ENGL 451B – Literature of the Victorian Age 2
ENGL 460A – Early Literature of the Modernist Period in the United Kingdom and Ireland
ENGL 460B – Literature of the Modernist Period in the United Kingdom and Ireland
ENGL 460C – Literature of the Postwar Period in the United Kingdom and Ireland
ENGL 460D – Contemporary Literature of the United Kingdom and Ireland
ENGL 463/GSJ 463 – Postcolonial Literatures
ENGL 470A – Contemporary Critical Theory

ENGL 471 – Adapting Literary Works
ENGL 484 – Topics in Literatures Medieval to Romantic
ENGL 485 – Topics in Literatures Romantic to Modern
ENGL 486 – Topics in Literatures Modern to Contemporary
ENGL 491 – Topics in Literature and Rhetoric

SPECIAL TOPICS

ENGL 332 – Topics in Creative Writing
ENGL 481 – Topics in the History and Theory of Language
ENGL 484 - Topics in Literatures Medieval to Romantic
ENGL 485 - Topics in Literatures Romantic to Modern
ENGL 486 - Topics in Literatures Modern to Contemporary
ENGL 491 – Topics in Literature and Rhetoric
ENGL 492 – Topics in the History and Theory of Rhetoric
ENGL 493 – Topics in Professional Writing and Communication Design
ENGL 494 – Topics in Forms of Media and Critical Analysis

/twk

David DeVidi
Associate Vice-President, Academic

SENATE REPORT – SUSTAINABILITY SUMMARY

OVERVIEW OF SUSTAINABILITY

This report provides a brief summary of major cross-campus updates from the Sustainability Office. More detailed information on a range of progress indicators and achievements can be found in Waterloo's annual [Environmental Sustainability Report](#) released in October 2021.

The Sustainability Office provides central support for sustainability planning and integration, supports outreach and engagement efforts, collaborates on implementation, and helps measure institutional progress, but this is and must be an institution-wide effort. As such, the actions reflected herein are a culmination of effort across many departments to further goals and objectives from the Strategic Plan, the [Environmental Sustainability Strategy](#), and the [Shift: Neutral](#) climate action plan.

As highlighted in both this summary and the sustainability report, there has been significant effort undertaken over the past 5 years for planning, evaluating, and building communities of support, as well as to initiate projects. Relative to the urgency of core sustainability issues such as climate change, however, it is critical to accelerate and scale efforts and to align campus-wide decision-making with shared goals to enable an “all of institution” approach.

CONNECTION TO STRATEGIC PLAN THEMES

Within the Strategic Plan, sustainability is most directly captured under the Sustainable and Diverse Communities theme objective C3A. However, as noted, sustainability efforts span and are a lens across all Strategic Plan themes. Actions and achievements across the Talent and Research themes span work completed by many units across campus, with some examples as follows:

- **[SDGs at Waterloo](#)**: The Sustainability Office recently compiled a new [report](#) tracking institution-wide contributions toward the UN SDGs. This is extremely broad, covering operational practice, research, teaching, and partnerships, and it includes environmental, social, and economic dimensions of sustainability. It was developed collaboratively with numerous stakeholders.
- **[THE Rankings](#)**: Waterloo recently ranked 53rd of over 1,400 institutions globally overall in the Times Higher Education Impact Rankings, which use the SDGs as their framework of assessment. Again, this covered a mix of academic, operational, and partnership efforts and performance indicators.
- **[Together | Ensemble](#)**: Organized by [SDSN Canada](#), hosted by the Faculty of Environment, this conference convened over 700 researchers, businesses, members of civil society, and government representatives to create an all-of-society approach to tackling sustainability within the Canadian context.
- **[Living Laboratory](#)**: Waterloo has re-launched the Sustainability Living Laboratory framework to link student and faculty research and learning outcomes with applied projects on real campus sustainability challenges. Early projects have already been facilitated and are growing over time.

CLIMATE ACTION

Strategic Plan Objective C3A speaks to taking meaningful action to address climate change in Waterloo's operations. The roadmap to do so is outlined in Waterloo's [Shift:Neutral](#) climate action plan, which establishes targets for reducing emissions by 17.5% by 2025 and 35% by 2030, relative to a 2015 base year, and achieving carbon neutrality by 2050. It includes a roadmap of changes needed across infrastructure, operations, and behaviours, and includes 46 actions.

As of 2020, Scope 1 and 2 emissions (direct and energy-related) have increased by 2.4%. Waterloo faces upward pressure due to both growth and changes to the Provincial energy supply mix that will make electricity used on campus more emissions-intensive in the coming years, absent policy changes. The drop in Scope 3 emissions are largely due to pandemic changes that will be temporary.

Following *Shift:Neutral*, there are actions underway to reduce emissions, including preliminary investments and approved directions in the following areas:

- Accelerated repair of failed steam traps across campus
- A design/feasibility study for long-term decarbonisation of the district energy system
- Installation of faucet aerators and low-flow showerheads to reduce water and energy use
- Piloting of building-level submeters for a sample of buildings, to enable continuous improvement, management, benchmarking, and support for grant applications
- [Incentives](#) for purchasing of electric vehicles within the University fleet
- Approval in Fall 2021 of energy/carbon [performance standards for new buildings](#)
- Approval in Fall 2021 for [Lifecycle Costing requirements](#) for key energy/fuel-using assets

Waterloo has also recently pursued federal funding applications to support other identified projects.

Significant additional investment and alignment of campus decision-making will be necessary to move toward established targets. This includes dedicated funding for energy and emissions projects, staff support to ensure professional and successful implementation, and clear standards and guidelines for the many layers of actions that generate greenhouse gas emissions, directly or indirectly.

WASTE REDUCTION

Waste management has been an important focus for campus action. It contributes a small portion of Scope 3 greenhouse gas emissions, but is highly visible and of concern to students and employees. Waterloo's approaches to waste management are anchored in the [Shift:Zero waste action plan](#), which aims for a 60% diversion rate by 2025 and zero-waste campus by 2035.

Prior to the pandemic, investments in new waste infrastructure and programs had gradually been increasing the waste diversion rate. With steep drops in the number of people physically on campus in 2020/2021, the amount and composition of waste changed, several programs were temporarily suspended, and new waste types were introduced, such as PPE. As of 2020, the campus' diversion rate was just under 30%.

There are many programs underway to improve this performance, including over 15 waste diversion programs, and the following efforts in 2021:

- Continued rollout of standardized waste receptacles with better information on sorting
- Resuming waste reduction programs such as Eco-Container and Lug-a-Mug
- Launch of a PPE recycling pilot
- Launch of a [web tool and app](#) to assist the campus with sorting and diverting waste

Figure 1: Campus Emissions, tonnes CO₂-e (2020)

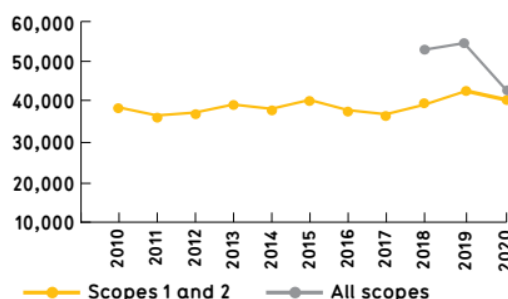
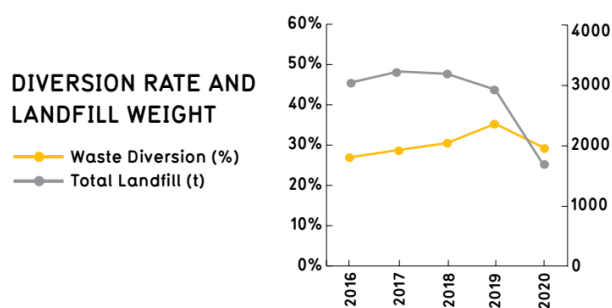


Figure 2: Campus Waste (2020)



While waste services are coordinated by a number of academic support units, the generation of waste is highly distributed among departments and individuals. There are few central guiding policies, processes, or procedures that emphasize or prioritize waste reduction, and while these should be developed, there is also considerable agency for department-led initiatives to build a culture of zero waste through thoughtful integration in the services, products, events, and academic programs under its management.

SUSTAINABLE TRANSPORTATION

Waterloo has a goal of increasing use of sustainable transportation and has a range of [sustainable transportation programs](#) and services in place, including in 2021 the expansion of 15 new electric vehicle charging stations and a new secure bike cage between ML/EV3. The initiatives, however, do not have a cohesive planning process and are in need of ongoing management and leadership.

Commuting to and from campus typically generates over 10,000 tonnes of greenhouse gas emissions per year. Over the past two years of the pandemic, commuting emissions decreased dramatically, as illustrated by the drop in All Scope emissions in Figure 1 above. Pre-pandemic transportation patterns are, however, already rebounding as activity on campus returns. There are clear opportunities to leverage the learnings and forced changes of the pandemic into lasting change, with benefits to both transportation planning and services, space and energy needs, and student and employee wellbeing.

NEXT STEPS AND 2022-23 ACTIONS

Waterloo's institutional objectives require support from all areas of the University, but many decisions run counter to the necessary directions and scale of action. To improve this alignment, broad priority actions over the next year will include:

1. **Systems** – strengthening alignment of relevant central policies, guidelines, processes, and standards to bring consistency and clearer responsibilities for individuals and units when making decisions.
2. **Resources** – ensuring that there is sufficient financial support and institutional capacity in place to take major actions centrally, and to support sustainability outcomes in decentralized decisions.
3. **Department engagement** – continuing individual partnerships, outreach, and targeted engagement with units across campus to leverage their unique organizational roles in support of shared objectives, and to align sustainability objectives with operational actions in areas not directly covered by central policy.

Specific actions and next steps to support these priorities and action implementation will include:

- Completing all currently funded energy and carbon reduction projects
- Continued discussion for significant acceleration of resources and capacity to reduce emissions in campus operations
- Development of a guideline for renewal and renovation of existing buildings to meet emissions targets
- Collaboratively developing targeted initiatives to integrate sustainability into business travel choices, particularly for University air travel
- Initiating a Sustainable Transportation Plan development process, including launching another institutional travel survey in Fall 2022
- Consulting on, refining, and approving Waterloo's draft Sustainable Land Care Standard
- Re-launching the Sustainability Certificate training program for employees, with both streamlined individual options and department/team-focused bespoke offerings
- Expanding and improving student and employee engagement opportunities through Green Office, Green Labs, and Green Residence programs
- Deepening academic partnerships for Sustainability Living Lab projects to leverage Waterloo's considerable expertise
- Exploring through the Teaching Innovation Incubator strategies and frameworks for embedding sustainability learning objectives across the curriculum

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University of Waterloo
REPORT OF THE VICE-PRESIDENT, ACACEMIC & PROVOST
Report to Senate
16 May 2022

FOR APPROVAL

Roster of Graduands

Since the roster of graduands will not be available until after the regular meeting of Senate in May and approval is required before the June meeting, the following motion is proposed:

Motion: That Senate delegate such approval to its Executive Committee for its 6 June 2022 meeting.

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To: Senate

From: James Rush, Vice-President, Academic & Provost

Date: 13 May 2022

Subject: **Composition of Nominating Committee for the Dean of Science**

Motion: On the recommendation of the Science Faculty Council, that Senate approve increasing the membership of the 2022 Nominating Committee for the Dean of Science by one to include seven (7) regular faculty members.

Rationale: Section 4.A of Policy 45 [excerpt below] sets out the composition of decanal search committees. For the Faculty of Science, the policy specifies that there are to be six regular faculty members, including at least one elected at-large. In requesting seven faculty representatives, the Faculty would aim to allow the nominating committee to have one faculty representative from each of the Faculty's six departments/schools, with the seventh faculty representative to be elected at-large in accordance with the requirements of the policy.

Senate has previously approved exceptions to the policy on a case-by-case basis, and identical exceptions were granted for Dean of Science Nominating Committees in 2011 and again in 2019.

Excerpt from Policy 45 – The Dean of a Faculty

“4. Appointment and Reappointment Procedures

A. Appointment of a Nominating Committee

When nominations for the Dean of a Faculty are required, as through notice of resignation, death, or the approaching end of a term, a nominating committee shall be formed by the Vice-President, Academic & Provost. The nominating committee shall normally be formed no earlier than 18 months and no later than one full calendar year prior to the end of the term of office of the incumbent.

The Committee Chair shall vote only to break a tie. The majority of the other voting members of the Committee shall be elected by and from the regular faculty members of the Faculty. The nominating committee shall consist of:

- The Vice-President, Academic & Provost, who shall chair the committee.
- Seven regular faculty members in Arts and Engineering, and six in the other Faculties. At least one committee member shall be elected at-large; the others are to be selected by a procedure approved by the Faculty Council and distributed to each regular faculty member. Where some of the members are to be elected by Department by and from the regular faculty members in the Department, those elections shall be conducted prior to the at-large Faculty-wide election. If both

genders are not represented on the Committee as a result of departmental elections, then the at-large election shall be conducted so as to ensure that both genders are represented.[1]

- In the Faculty of Arts, one faculty member from and appointed by the Federated & Affiliated Colleges.
- One senior regular faculty member from outside the Faculty concerned, selected by the Vice-President, Academic & Provost in consultation with the President.
- One staff member elected by and from the regular staff of the Faculty, and one appointed by the Staff Association, normally from the Faculty concerned.
- One undergraduate student from the Faculty concerned, appointed by the Federation of Students, in consultation with the appropriate student society.
- One graduate student from the Faculty concerned, appointed by the Graduate Student Association, in consultation with the appropriate student society.

A reasonable gender balance should be maintained on nominating committees, whenever feasible.”

Vice-President, Research & International

Report to Senate

May 2022

Introduction

This report to Senate highlights successful research outputs and outcomes by the thematic areas as outlined in Waterloo's Strategic Plan 2020-25.

ADVANCING RESEARCH FOR GLOBAL IMPACT

R1 - Research strengths to solve real-world problems

Awards and Distinctions

- **Philippe Van Cappellen** (Earth and Environmental Sciences) - J. Tuzo Wilson Medal - Canadian Geophysical Union
 - This prestigious recognition is a competitive award, and it is awarded to a scientist who had made outstanding career-long contributions to the geophysical sciences in Canada.
- **Heather Keller** (Kinesiology and Health Sciences) - Earle Willard McHenry Award for Distinguished Service in Nutrition - Canadian Nutrition Society
 - This prestigious award is given annually in recognition of distinguished service in the field of nutrition by a Canadian or Canadian-based individual. The award is given for merit in teaching, in inspiring students and colleagues, in providing leadership through professional associations leading to progress in nutrition, in giving administrative or material support towards the development of outstanding nutrition / nutritionally oriented programs, in research achievement.
- **Laura Hug** (Biology) – 2022 Thermo Fisher Scientific Award - Canadian Society for Microbiologists (CSM)
 - The Award recognizes outstanding contributions to microbiology as a discipline. Dr. Hug will present a keynote on her research at the upcoming CSM conference on June 26-29, 2022.
- **Emmanuel Ho** (School of Pharmacy) - 2021 Leslie Dan Faculty of Pharmacy Alumni Award for Leadership in Pharmaceutical Sciences - University of Toronto
 - This award honours exceptional alumni for their outstanding accomplishments in pharmacy practice and pharmaceutical sciences.
- **Maren Oelbermann** (School of Environment, Resources and Sustainability) – 2021 Editor's Citation for Excellence - Journal of Environmental Quality.
 - For outstanding professional contributions in the oversight of manuscript reviews in 2021.

- **Robert Mann** (Physics and Astronomy) and **John Hirdes** (School of Public Health Sciences) - 2022 University Professor - University of Waterloo
 - This designation recognizes exceptional scholarly achievement and international pre-eminence and is given to a maximum of two faculty members each year.

Tri-Council and Other Funding

New Frontiers in Research Fund (NFRF) Exploration Grant

The goal of the NFRF Exploration stream is to inspire interdisciplinary research by bringing disciplines together beyond traditional disciplines and to explore something new, that might have the potential for significant impact.

Waterloo was successful on five NFRF-Exploration grants, totalling **\$1,245,866**. Waterloo's success rate was 21.7% - close to the national rate of 22.8%. NFRF awarded 102 grants, nationally, and Waterloo secured 4.9% of these awards.

1. **Giovanni Cascante** (CEE), Optimized use of mechanical waves in a novel vibratory drainage stimulation device (VDSD), from lungs to water filter applications, \$250,000
2. **Paolo Dominelli** (Kinesiology), A Next Generation Fire Safety Companion: Grounded in Science, Embracing Population Diversity, \$245,866
3. **Elizabeth English** (Architecture), Water is Our Friend: Flood-Resilient and Climate-Adaptive Amphibious Housing for Indigenous Populations in Canada, \$250,000
4. **Holger Kleinke** (Chemistry), Hybrid-powered Portable Solid-State Lighting, \$250,000
5. **Will Percival** (Physics), Being confident in the discovery of new physics from cosmological observations, \$250,000

National Institutes of Health (NIH) grants

Waterloo researchers secured **five** NIH grants totalling approximately **\$7.3 million USD**, over multiple years.

- 1) **Janusz Pawliszyn** (Chemistry), co-investigator on grant led by Thilo Womelsdorf from Vanderbilt for *Muscarinic modulation of RDoC constructs in primate behavior and fronto-striatal circuits*; estimated \$478,455 USD over 5 years
- 2) **Geoff Fong** (Psychology) and **Dave Hammond** (Public Health Sciences) co-investigators on grant led by Roswell Park (New York) Cancer Center for *Assessing the Impact of the Four 2019-2020 US-Federal Level Tobacco Control*

Actions: Flavors, Youth Marketing, Youth Access & Tobacco 21; estimated \$117,312 USD over 2 years

- 3) **Bill McIlroy** and **Karen Van Ooteghem** (Kinesiology & Health Sciences) co-investigators on co-operative agreement led by Northwestern University for *Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging (SUPER Aging)*; estimated \$518,366 USD over 5 years
- 4) **Geoff Fong** (Psychology) as Co-PI and **Dave Hammond** (Public Health Sciences) and **Mary Thompson** and **Changbao Wu** (Statistics & Actuarial Science) as co-investigators on program grant led by Medical University of South Carolina for *Predicting and Understanding the Use of Nicotine Products In a Rapidly Evolving Nicotine Marketplace: The International Nicotine Product, Policy, and Market (INPAM) Study*; estimated \$6.2M USD over 5 years

NSERC Undergraduate Student Research Awards (USRA)

For fiscal year 2021-22, Waterloo issued **171 USRA awards** valued at **\$6,000** each for a total of **\$1,026,000** in support of undergraduate students to develop, support and encourage their interests and careers in the natural sciences and engineering fields.

Awards distributed by Faculty:

- **Arts:** 7 or 4% of awards (\$42,000)
- **Engineering:** 72 or 42% of awards (\$432,000)
- **Environment:** 7 or 4% of awards (\$42,000)
- **Health:** 8 or 5% of awards (\$48,000)
- **Mathematics:** 38 (22%) awards (\$228,000)
- **Science:** 39 or 23% of awards (\$234,000)
- 126 or 74% of awards were held by co-op students.

Canadian Forest Sector Workforce Diversity undergraduate supplements

Two Natural Resources Canada (NRCan) - CFS Supplement awards, valued at \$5,000, was awarded to **two undergraduate students in the Faculty of Engineering**. The objective of this supplement is to provide research opportunities in natural sciences and engineering to highly qualified individuals in research areas of relevance to Natural Resources Canada – Canadian Forest Service and encourage postgraduate studies in the fields relevant to the Canadian forest sector.

R3 - Leveraging partnerships for research impact

NSERC Alliance

Serhiy Yarusevych (MME)

Research and Development of Key Aerodynamics and Communication Components for a New Unmanned Stratospheric Glider

\$184,615 with Stratodynamics Aviation Inc - 3 Years

Josh Neufeld (Biology)

Integrated molecular profiling to explore the microbiology of deep geological repository components for storage of used nuclear fuel

\$1,858,203 with Nuclear Waste Management Organization - 5 Years

Sushanta Mitra, (WIN)

Advancing multilayer surface disinfection technologies for modern pandemic protection

In-Kind only: Econse Water Purification Systems, Sio2 Innovation Labs Inc, Schlegel-

UW Research Institute for Aging & Schlegel Villages

\$745,676 Missions Grant - 2 Years

N. Sri Namachchivaya (Applied Math)

Development of Data-driven Decision Support System using Deep Learning Techniques

\$300,000 with Tecsis Corp & Hegyi Geomatics Int'l Inc - 3 Years

Sagar Naik (ECE)

Predicting Risks of Forest Fires using Federated Machine Learning Methods

In-Kind only: Cistel Technology Inc & Tele AI

\$395,940 Missions Grant - 2 Years

Eric Croiset (Chem Eng)

CO2 Capture and Storage Assessment for Stelco's Lake Erie Facility

In-Kind only: Stelco Inc

\$526,779 Missions Grant - 2 Years

International Partnerships

Hyock Ju Kwon (Mechanical and Mechatronics Engineering, ENG) was awarded four projects funded by Korea Electrotechnology Research Institute:

1. AI-based Ball Selection System (Taelim), \$90,405 over four months
2. AI-based Machining Tool Life Prediction System (Shinseung), \$90,405 over four months
3. Development and Application of AI System for Manufacturing (Changwon), \$231,818 over nine months

4. Development and Application of AI System for Manufacturing (Busan) 255,000 over nine months.

Waterloo International Agreements

Waterloo International facilitated the signing of one agreement as follows:

- Indian Institute of Technology Delhi (IITD), India, Memorandum of Understanding.
 - This university wide MOU is intended to support a range of potential activities across learning, research, and community with IITD, including a joint research competition. Additional details on this partnership are available at: <https://uwaterloo.ca/international/news/university-waterloo-deepens-international-partnerships>

Academics Without Borders

The University of Waterloo has joined the Academics Without Borders (AWB) Network of Canadian universities and colleges. This membership will provide Waterloo with the opportunity to be engaged in advancing the capacity and quality of higher education globally. On 22 March 2022, Waterloo International hosted **Greg Moran, Executive Director** and **Corrie Young, Associate Executive Director**, AWB, at the University's March International Operations Council Meeting. Waterloo's membership in the AWB Network will contribute to enriching and advancing a number of Waterloo's strategic priorities, namely fostering a connected and supportive community, and broadening engagement with international communities. More information about Waterloo joining the AWB Network can be found [here](#).

Shastri Indo-Canadian Institute

On 30 March 2022, Waterloo International hosted representatives from the Shastri Indo-Canadian Institute. The Shastri Indo-Canadian Institute, of which Waterloo is a member, is a bi-national (India-Canada) organization that links academia, government, the business community and civil society organizations by funding research and hosting seminars. Discussions centred around how best to work together to advance connections in India. For more information about this visit see:

<https://twitter.com/WaterlooINT/status/1509234362734231552?s=20&t=PvuOBTwo1zPTKZNSNroqcQ>

Ukraine

Waterloo International has taken immediate action to reach out to Ukrainian students to offer comfort and counselling services. Subsequently, Waterloo has taken, and continues to take, various actions to support students, staff and faculty directly affected by the invasion. Waterloo is coordinating offers of support and engaging multilaterally with partner organizations including the Canadian Bureau for International Education

(CBIE), Universities Canada, the World University Service of Canada and Academics Without Borders as they develop and implement collective responses. Waterloo's support to the Waterloo community and beyond can be found [here](#).

International Student Scholarships

Working closely with Graduate Studies and Postdoctoral Affairs, the Student Success Office, and the Office of Research, between February and March 2022, Waterloo International supported the submission of student scholarship applications to various Global Affairs Canada Scholarship programs including Emerging Leaders in the Americas Program (ELAP), and Study in Canada Canada-ASEAN Scholarships and Educational Exchanges for Development (SEED). Details on these scholarship programs can be found at <https://w05.international.gc.ca/Scholarships-Bourses/scholarshipnoncdn-boursenoncdn.aspx?lang=eng>.