

**University of Waterloo**  
**SENATE EXECUTIVE COMMITTEE**  
**Notice of Meeting**

**Date:** Monday 3 May 2021  
**Time:** 3:30 p.m.  
**Place:** Teams Videoconference

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<b>OPEN SESSION</b>	<b>Action</b>
1. Minutes of the 5 April 2021 Meeting*	Decision
2. Business Arising from the Minutes	
3. Report of the Vice-President, Academic & Provost	
a. Roster of Graduands	Decision
4. Senate Committee Membership Recommendations*	Decision
5. Draft 17 May 2021 Senate Agenda	Decision
6. Other Business	

\*to be distributed

KJJ/ees  
26 April 2021

Karen Jack  
University Secretary  
Secretary to the Executive Committee

**University of Waterloo**  
**SENATE**  
**Notice of Meeting**

**Date:** Tuesday 17 May 2021

**Time:** 3:30 p.m.

**Place:** Teams Videoconference

	<b>OPEN SESSION</b>	<b>Action</b>
3:30	<p><b><u>Consent Agenda</u></b>  <b>Motion:</b> To approve or receive for information by consent items 1-5 below.</p> <ol style="list-style-type: none"> <li>1. Minutes of the 20 April 2020 Meeting*</li> <li>2. Reports from Committees and Councils               <ol style="list-style-type: none"> <li>a. Executive Committee*</li> <li>b. Graduate &amp; Research Council</li> <li>c. Undergraduate Council*</li> </ol> </li> <li>3. Report of the President               <ol style="list-style-type: none"> <li>a. Recognition and Commendation</li> </ol> </li> <li>4. Report of the Vice-President, Academic &amp; Provost               <ol style="list-style-type: none"> <li>a. University Research Chairs</li> </ol> </li> <li>5. Reports from the Faculties</li> </ol>	<p>Decision</p> <p>Information Information Decision/Information</p> <p>Information</p> <p>Information</p> <p>Information</p>
3:35	<p><b><u>Regular Agenda</u></b>          6. Business Arising from the Minutes</p>	
3:40	7. Presentation – To Be Determined	Information
3:50	8. Reports from Committees and Councils	Decision
4:00	<ol style="list-style-type: none"> <li>a. Graduate &amp; Research Council</li> <li>b. Undergraduate Council*</li> </ol>	Decision
4:10	9. Report of the President	Information
4:20	10. Q&A Period with the President	Information
4:30	11. Report of the Vice-President, Academic & Provost	Decision
4:35	<ol style="list-style-type: none"> <li>a. Roster of Graduands</li> </ol>	Information
4:40	12. Report of the Vice-President, Research & International	Information
	13. Other Business	
<b>CONFIDENTIAL SESSION</b>		
4:45	14. Minutes of the 20 April 2020 Meeting*	Decision
4:55	15. Business Arising from the Minutes	
5:00	16. Report of the President	Information

5:05  
26 April 2021

17. Other Business

Karen Jack  
University Secretary  
Secretary to Senate

**University of Waterloo**  
**SENATE GRADUATE & RESEARCH COUNCIL**  
**Report to Senate**  
**17 May 2021**

Senate Graduate & Research Council met on 12 April 2021 and agreed 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**

### **RESEARCH CENTRES AND INSTITUTES**

On behalf of Senate, council approved a 12-month extension of the mandate for the Waterloo Centre for Automotive Research (WatCAR), Engineering, due to challenges and delays to business processes caused by the COVID-19 pandemic. The revised centre renewal date is 30 April 2022.

### **POSTHUMOUS DEGREES**

On behalf on Senate, council approved delegation of authority for awarding graduate posthumous degrees to its co-chairs. **Rationale:** This is to ensure that all posthumous graduate degree requests are processed expeditiously and without undue delay. That is, by delegating this authority to Senate Graduate and Research Council co-chairs, decisions can be made as soon as possible and outside of the confines of scheduled monthly council meetings. This is also to ensure alignment with that of Senate Undergraduate Council—where the chair has held and exercised the delegated authority for awarding undergraduate posthumous degrees since October 2012.

### **CURRICULAR SUBMISSIONS**

On behalf of Senate, council approved new courses, course revisions, course inactivations, milestone changes, and minor program revisions for the Faculty of Arts (peace and conflict studies, psychology), Conrad Grebel (theological studies), Environment (geography and environmental management), Faculty of Health (school of public health and health systems, department of kinesiology), and the Faculty of Mathematics (combinatorics & optimization, computer science, pure mathematics, statistics & actuarial science, master of mathematics for teachers).

### **GRADUATE AWARDS**

On behalf of Senate, council approved the Waterloo AI Institute Graduate Scholarship (operating), Faculty of Arts Graduate Award (operating), José Blakeley Graduate Scholarship in Data Systems (endowment), Harvey Bains and Ben Kaak Doctoral Award (trust), and the Marzieh (Mari) Foroutan Memorial Graduate Scholarship (endowment).

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

Charmaine Dean  
Vice President, Research & International

**University of Waterloo**  
**SENATE**  
**Report of the President**  
**17 May 2021**

**FOR INFORMATION**

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**Recognition and Commendation**

**Professor Mei Nagappan** has received a **2020 Outstanding Early Career Researcher Award** from **CS-Can/Info-Can**, the nation's professional society dedicated to representing computer science and the interests of the discipline to Canadians. He is the ninth faculty member at the Cheriton School of Computer Science to receive this prestigious award. Conferred annually since 2009, the Outstanding Early Career Researcher Award recognizes excellence in computer science research and is given to top faculty members in Canadian computer science departments, schools and faculties who are within the first decade of their career after completing their PhD. Nagappan is the current **Ross & Muriel Cheriton Faculty Fellow** and an associate professor, and has been a member of the faculty since September 2016. Previously, he was an assistant professor in the Department of Software Engineering at the Rochester Institute of Technology, and earlier still a postdoctoral researcher at the Software Analysis and Intelligence Lab in the School of Computing at Queen's University. He completed his PhD in the Department of Computer Science at North Carolina State University.

(adapted from the *Daily Bulletin*, 31 March 2021)

**Brigitte Shim** and **A. Howard Sutcliffe**, architects who met at Waterloo and graduated together from the School of Architecture in 1983, were named the winners of the **2021 Gold Medal by the Royal Architecture Institute of Canada (RAIC)**. Awarded annually by the RAIC, a not-for-profit group that has represented architects and architecture for more than 100 years, the medal is its highest honour, recognizing a significant and lasting contribution to Canadian architecture. A couple as well as the founding partners of Shim-Sutcliffe Architects in Toronto, they both earned degrees at Waterloo in environmental studies in 1981 before going on to study architecture. They have been professional collaborators ever since. Shim and Sutcliffe have won 15 Governor General's Medals for Architecture, made the Order of Canada together in 2013 and received the Team Alumni Achievement Medal from Waterloo Engineering in 2011. Celebrated projects by the duo include their own residence, the Laneway House, and the Robertson Davies Library in Toronto. They are currently working on projects in North America, Russia and Hong Kong. In addition to other qualities, their work is distinguished by meticulous attention to detail. "By their relentless pursuit of excellence, Brigitte Shim and Howard Sutcliffe have produced a significant body of exceptional design works covering architecture, landscape, interior, furniture and hardware—all developed to an incredibly high standard, with craft, rigour, sense of place, and mastery of proportions," commented one of the award judges.

(adapted from the *Daily Bulletin*, 7 April 2021)

On March 5, 2021, for the second year in a row, students from the **University of Waterloo Student Venture Fund (SVF)** captured the **2021 Undergraduate Canada Regional Finals Championship** for the **Venture Capital Investment Competition (VCIC)**. The University of Waterloo claimed the title over the University of Alberta (2nd) and Acadia University (3rd) and has advanced to the International Finals being held on April 10. The University of Waterloo's VCIC team will be competing in the Global Finals on April 9 and 10 against eight prominent US universities: Berkeley, Brigham Young, Cornell,

University of Chicago, Georgetown, Miami of Ohio, Oregon, and Pomona College. VCIC is the world's largest venture capital competition with over 120 university and graduate school teams competing. This year, undergraduate student venture teams from 48 universities across the US and Canada competed in eight regional competitions. The six team members of the undergraduate team are all veterans of the University of Waterloo's SVF: **Yigga Zhang**, 4A AFM; **Tony Shi**, 4B CFM; **Sean Mark**, 4A AFM; **Noah Simao**, 4A AFM; **Roberto Babaran**, 3A AFM; and **Megan Boyd**, 3A AFM. As members of the SVF, the team already had experience in evaluating management, completing market research, valuing companies, conducting due diligence, and recommending investments in early stage companies. In VCIC, the team reviewed live pitches from early-stage technology companies to select and prepare an investment proposal and defend their investment proposal to a panel of VC judges. Although the VCIC undergraduate team is made up of brilliant students, the students couldn't have done it on their own. As with all SAF competition teams, the students benefited from the guidance and support of faculty mentors **Ranjini Jha**, **Frank Hayes**, and **Mark Arnason**.

In addition, Waterloo's **Graduate division VCIC team** finished a close second to the Rotman MBA team from the University of Toronto against a competitive field of MBA schools. "I'm so proud of the students on both our teams and am excited to see our undergrad team compete against the best in the world," said Mark Arnason, lecturer, strategy and international business.

(adapted from the *Daily Bulletin*, 7 April 2021)

All six teams that earned \$10,000 each at Engineering's pitch contest developed creative solutions to challenges ranging from making rock climbing safer to providing spinal cord injury patients with increased mobility. The winning teams of senior-year Engineering students were narrowed down from 10 who took three minutes each to explain their projects to a panel of judges in the **Norman Esch Entrepreneurship Awards for Capstone Design** contest held remotely on April 8. For the past eight months, students have been mainly working on their Capstone Design projects remotely rather than together on campus due to the pandemic.

One of those projects, a device to allow people with spinal cord injuries (SCI) to be more mobile, earned \$10,000 in the pitch competition along with \$3,000 as the winner of the Sedra People's Choice Award. Members of **Bless Your Sole** – mechanical engineering students **Anna Xiang**, **Debrish Sarma**, **Milos Zivkovic**, **Taha Malik**, **Trevor Zhu** and **Vatsalya Saini** – developed the Lock Step, an ankle exoskeleton powered by an onboard linear actuator system allowing for freedom of mobility. Team members noted that the cost of their device is estimated to be \$2,600, 20 times less expensive than their closest competitor. "Our product aims to be more of a consumer-oriented exoskeleton whereas the current exoskeletons in this market are more research-oriented so they are more one-off designs," said Malik. "We aim to take our technology and put it in the hands of as many people as we can."

The other winning teams are:

- **Canadian Ibex (Daniel Bell, Christopher Friedel, Peter Morrow and Justin Swinoga** — mechanical engineering)
- **EyeMove Technologies (Oswaldo Ferro, Saejith Nair, Arjun Narayan and Ali Toyserkani** – mechatronics engineering)
- **UWTensil (Gavin Lee, Nishita Saha, Minh Trinh and Andy Yang** – chemical engineering)
- **Sterilus (Pei Liang Guo, Joe Mattekatt and Udeshaya Wadhwa** - mechatronics engineering)
- **Yada (Aravind Segu, Carl Shen, Shehan Suresh and Akshay Pall** - software engineering)

(adapted from the *Daily Bulletin*, 12 April 2021)

**University of Waterloo**  
**SENATE**  
**Report of the Vice-President Academic & Provost**  
**May 17, 2021**

**UNIVERSITY RESEARCH CHAIRS**

Waterloo has granted University Research Chair awards since 2004. Current chair holders are:

**Kankar Bhattacharya** (electrical and computer engineering), **Sue Ann Campbell** (applied math), **Sherry Dupuis** (recreation and leisure studies), **Eric Helleiner** (political science), **Hamid Jahed** (mechanical and mechatronics engineering), **Bin Ma** (computer science), **Daniel Scott** (geography and environmental management) in 2021; **Hany Aziz** (electrical and computer engineering), **Shai Ben-David** (computer science), **Andrew Cooper** (political science), **Andrew Doxey** (biology), **Susan Elliott** (geography and environmental management), **Penny Haxell** (combinatorics and optimization), **Zoya Leonenko** (physics & astronomy), **William Melek** (mechanical & mechatronics engineering), **Alexander Schied** (statistics and actuarial science), **Winfried Siemerling** (english language & literature) in 2020; **Nandita Basu** (civil and environmental engineering), **Carl Haas\*** (civil and environmental engineering), **Matt Kennedy** (pure mathematics), **Kate Larson** (computer science), **Sri Namachchivaya** (applied mathematics), **Josh Neufeld** (biology), **Maria Anna Polak** (civil & environmental engineering), **Carol Ptacek** (earth & environmental sciences), **John T.W. Yeow** (systems design engineering) in 2019; **James Blight** (history), **Raouf Boutaba** (computer science), **Roy Brouwer** (economics), **Thomas Homer-Dixon** (faculty of environment), **Sue Horton** (school of public health and health systems & economics), **Fakhreddine Karray** (electrical & computer engineering), **Barbara Schmenk** (german and slavic studies), **Imre Szeman** (drama and speech communication), **Michael Tam** (chemical engineering), **Ruodo Wang** (statistics and actuarial science), **Olaf Weber** (environment, enterprise and development), **David Welch** (political science), **Michael Worswick\*** (mechanical and mechatronics engineering) in 2018; **Guang Gong** (electrical and computer engineering), **Alice Kuzniar** (germanic and slavic studies), **Juewen Liu** (chemistry), **Colleen Maxwell** (pharmacy), **Marcel O’Gorman** (english language and literature), **Graham Taylor** (systems design engineering), **Zhou Wang** (electrical and computer engineering) in 2017; **Jeff Chen** (physics & astronomy), **Duane Cronin** (mechanical & mechatronics engineering), **Xianshe Feng** (chemical engineering) in 2016; **Pu Chen** (chemical engineering), **Claude Duguay** (geography & environmental management), **Lila Kari** (computer science), **Debbie Leung** (combinatorics & optimization), **John Long** (electrical and computer engineering), **Brian McNamara** (physics & astronomy), **Heidi Swanson** (biology) in 2015; **James Geelen** (combinatorics & optimization), **Achim Kempf** (applied mathematics), **Xianguo Li** (mechanical & mechatronics engineering), **Qing-Bin Lu** (physics & astronomy), **Mark Matsen** (chemical engineering), **Daniel Scott** (geography & environmental management) in 2014; **Chris Bauch** (applied mathematics), **Jason Bell** (pure mathematics), **Ravi Mazumdar** (electrical & computer engineering) in 2013; **Ian Goldberg** (computer science), **Elizabeth Irving** (optometry & vision science), **Shesha Jayaram** (electrical & computer engineering), **Lyndon Jones** (optometry & vision science), **Michele Mosca** (combinatorics & optimization) in 2012; **Fakhreddine Karray** (electrical & computer engineering), **Bill McIlroy** (kinesiology), **Sivabal Sivaloganathan** (applied mathematics), **Michael Tam** (chemical engineering), **Grace Yi** (statistics & actuarial science) in 2011.

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

**UNIVERSITY OF WATERLOO**  
**REPORT OF THE DEAN OF THE FACULTY OF ARTS TO SENATE**  
**May 17, 2021**

**FOR INFORMATION**

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**A. APPOINTMENTS**

**Post-Doctoral Appointment**

**ROGERS, Katja**, Stratford School of Design, April 15, 2021 to April 14, 2023.

**Cross Appointment**

**MORENZO-CRUZ, Juan**, Associate Professor, School of Environment Enterprise and Development to Department of Economics, May 1, 2021 to April 30, 2026.

**Adjunct Appointments – Graduate Supervision**

**HAYDEN, Andres**, Department of Political Science, April 1, 2021 to December 31, 2024.

**Adjunct Reappointments – Graduate Supervision**

**GOSSE, Leanne**, Department of Psychology, April 1, 2021 to March 31, 2023.

**B. ADMINISTRATIVE APPOINTMENTS**

**GORMAN, Dan**, Department of History, Chair, July 1, 2021 to June 30, 2025.

**LEONI, Monica**, Department of Fine Arts, Chair, July 1, 2021 to June 30, 2025.

**LIU, Jennifer**, Department of Anthropology, Chair, July 1, 2021 to June 30, 2024.

**Administrative Reappointment**

**FUGELSANG, Jonathan**, Department of Psychology, Associate Chair, Graduate Studies, July 1, 2021- June 30, 2023.

**C. SABBATICAL LEAVES**

**For approval by the Board of Governors:**

**Approved by the Board of Governors:**

**DANISCH, Robert**, Associate Professor, Department of Communications, January 1, 2022-June 30, 2022, six months at full salary.

**DAWSON, Lorne**, Professor, Department of Religious Studies, September 1, 2021 to August 31, 2022, 12 months at full salary.

**ELLARD, Colin, Professor**, Department of Psychology, September 1, 2021 to August 31, 2022, twelve months at full salary.

**HEBBINCKUYS, Nicolas**, Assistant Professor, Department of French Studies, July 1, 2021 to December 31, 2021, six months at full salary.

**LANOSZKA, Alexander**, Assistant Professor, Department of Political Studies, July 1, 2021 to December 31, 2021, six months at full salary.

**LU, Haihao**, Assistant Professor, Assistant Professor, School of Accounting & Finance, July 1, 2021 to December 31, 2021, six months at full salary.

**MACDONALD, Michael**, Associate Professor, Department of English Language & Literature, September 1, 2021 to August 31, 2022, 12 months at 85% salary.

**MARINO, Patricia**, Professor, Department of Philosophy, July 1, 2021 to December 31, 2021, six months at 85% salary.

**PARK, Robert**, Professor, Department of Anthropology, January 1, 2022 to June 30, 2022, 6 months at full salary.

**SABBATICAL LEAVE – Cancelled**

**VOORHEES, Gerald**, Associate Professor, Department of Communication Arts

**D. ADMINISTRATIVE LEAVES**

**For Approval by the Board of Governors:**

**Approved by the Board of Governors:**

**DANISCH, Robert**, Associate Professor, Department of Communications, October 1, 2021 to December 31, 2021, three months at full salary.

**MARINO, Patricia**, Professor, Department of Philosophy, January 1, 2022 to March 31, 2022, three months at full salary.

**PARK, Robert**, Professor, Department of Anthropology, August 1 2021 to December 31, 2021, 5 months at full salary.



Sheila Ager  
Dean, Faculty of Arts



**UNIVERSITY OF WATERLOO**  
**REPORT OF THE DEAN OF ENGINEERING TO SENATE**  
**May 17, 2021**

**FOR INFORMATION**

**A. *APPOINTMENTS***

**Visiting Appointments**

**ZHANG, Ruizeng**, Scholar, Department of Mechanical and Mechatronics Engineering, May 1, 2021 – April 30, 2023.

**Adjunct Appointments**

Graduate Supervision and Research

**XI, PengCheng**, Assistant Professor, Department of Systems Design Engineering, October 1, 2020 – September 30, 2023.

**Adjunct Reappointments**

Graduate Supervision and Research

**VARAMINI, Sina**, Assistant Professor, Department of Civil and Environmental Engineering, June 1, 2021 – May 31, 2023.

**Changes in Appointments**

**WANG, Junhua**, Researcher, Department of Civil and Environmental Engineering, August 15, 2021 – August 14, 2022. This is an appointment date change from the original dates of July 1, 2021 – June 30, 2022.

**Cross Appointments**

**SCHNEIDER, Oliver**, Assistant Professor, Department of Management Sciences Engineering to Department of System Design Engineering, January 1, 2021 – December 31, 2023.

**B. *ADMINISTRATIVE APPOINTMENTS***

**ROBINSON, Mary**, Associate Dean, Outreach, Equity and Diversity, Engineering Outreach, May 1, 2021 – April 30, 2024.

***ADMINISTRATIVE REAPPOINTMENTS***

**ABDEL-RAHMAN, Eihab**, Associate Chair, Graduate Studies, Department of Systems Design Engineering, May 1, 2021 – April 30, 2024.

Mary Wells

Mary A. Wells, Dean  
Faculty of Engineering

**University of Waterloo**  
**REPORT OF THE DEAN OF ENVIRONMENT TO SENATE**  
**May 17, 2021**

**FOR INFORMATION**

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**A. APPOINTMENTS**

**Adjunct Appointments**

*Graduate Supervision and Research*

**STEVENSON, Robert**, Assistant Professor, School of Environment, Resources and Sustainability, January 1, 2021 to December 31, 2023.

*Graduate Supervision*

**BOLAND, Alana**, Associate Professor, School of Planning, February 1, 2021 to January 31, 2023.

**HANNA, Alan**, Assistant Professor, School of Environment, Resources and Sustainability, April 1, 2021 to March 31, 2023.

**IANNANTUONO, Adele**, Assistant Professor, Department of Geography and Environmental Management, September 1, 2021 to August 31, 2024.

**B. ADMINISTRATIVE APPOINTMENTS**

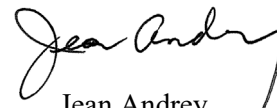
**WOOD, Michael**, Associate Director, Undergraduate Studies, School of Environment, Enterprise and Development, July 1, 2021 to June 30, 2022.

**WOOD, Michael**, Co-Director, Bachelor of Sustainability and Financial Management, School of Environment, Enterprise and Development, July 1, 2021 to June 30, 2024.

**C. SABBATICAL LEAVES**

*For approval by the Board of Governors*

**SWATUK, Larry**, Professor, School of Environment, Enterprise and Development, January 1, 2022 to December 31, 2022 at 87.8% salary.

  
Jean Andrey  
Dean

**University of Waterloo**  
**REPORT OF THE DEAN OF FACULTY OF HEALTH TO SENATE**  
**May 17, 2021**

**FOR INFORMATION**

**A. APPOINTMENTS**

**Adjunct Appointment**

*Graduate Supervision*

**FORTUNE, Darla**, Associate Professor, Department of Recreation and Leisure Studies, April 1, 2021 – June 30, 2024.

**GREPIN, Karen**, Associate Professor, School of Public Health and Health Systems, July 1, 2021 – April 30, 2023.

**OSTERTAG, Sonja**, April 1, 2021 – June 30, 2021, School of Public Health and Health Systems, April 1, 2021 – August 31, 2022.

*Graduate Supervision and Research*

**VRKLJAN, Brenda**, Professor, Department of Kinesiology, April 1, 2021 – March 31, 2023.

*Research and course instruction*

**ZAZA, Christine**, Lecturer, Faculty of Health, April 1, 2021 – March 31, 2024.

**Special Lecturer Appointments**

**GIOSA, Justine**, Lecturer, School of Public Health and Health Systems, September 1, 2021 – December 31, 2021.

*For Approval by the Board of Governors*

**B. SABBATICAL**

**PARRY, Diana**, Professor, Department of Recreation and Leisure Studies, September 1, 2021 – August 31, 2022.

**C. ADMINISTRATIVE LEAVE**

**PARRY, Diana**, Professor, Department of Recreation and Leisure Studies, September 1, 2022 – October 31, 2022.

**D. ADMINISTRATIVE REAPPOINTMENT**

**FERRIES, Leann**, Associate Dean, Undergraduate Studies and Cooperative Education, Faculty of Health, July 1, 2021 – June 30, 2026.

**E. RETIREMENTS**

**McCARVILLE, Ronald**, Professor, Department of Recreation and Leisure Studies, August 31, 2021.

**McKILLOP, Ian**, Associate Professor, School of Public Health and Health Systems, January 1, 2024.



**Lili Liu, Dean, Faculty of Health**

**University of Waterloo**  
**REPORT OF THE DEAN OF MATHEMATICS TO SENATE**  
**May 17, 2021**

**FOR INFORMATION**

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**A. APPOINTMENTS (for approval by the Board of Governors)**

**Tenured**

**BRANNAN, Michael** (BSc Eng, 2006, Queen's University; MMath, 2008, University of Waterloo; PhD, 2012, Queen's University), Associate Professor, Dept. of Pure Mathematics, July 1, 2021. Dr. Brannan is currently an Associate Professor in the Department of Mathematics at the Texas A&M University. Previously, he was an NSERC Postdoctoral Fellow, a J.L. Doob Research Assistant Professor and an NSERC Banting Fellowship Awardee. His research interests are quite broad, and include aspects of representation theory, quantum algebra, quantum group theory, operator algebras, non-commutative probability and mathematical physics. Dr. Brannan is particularly interested in problems where tools from non-commutative algebra, analysis and quantum information theory interact in fruitful ways. Dr. Brannan's research reinforces existing strengths within Pure Math's world famous group in analysis, and forges ties with colleagues in other units in the Faculty, the University and around the world.

**Probationary-Term Appointments**

**BARRADAS, Diogo** (BSc, 2014; MSc, 2016, PhD 2021, all from the Universidade de Lisboa), Assistant Professor, David R. Cheriton School of Computer Science, January 1, 2022 – June 30, 2025. Mr. Barradas is currently completing his PhD at the Universidade de Lisboa. His research is in the area of censorship-resistant communication. Mr. Barradas has pioneered the use of personal video communication, such as Skype, as a carrier for covert communication. Furthermore, he has developed scalable systems at a very low level in the network stack that enable the wide deployment of these methods on the Internet. Mr. Barradas research meshes very well with others at Waterloo underpinning his excellent fit for the position. He will strengthen computer security and privacy enhancing technologies within the School.

**DEL REY FERNÁNDEZ, David** (BA, 2003; BSc, 2008; MSc, 2009, all from the University of Western Ontario; PhD, 2015, University of Toronto), Assistant Professor, Dept. of Applied Mathematics, July 1, 2021 – June 30, 2024. Dr. Del Rey Fernández is currently a Research Scientist at the NASA Langley Research Center/National Institute of Aerospace. His area of research is broadly focused on the numerical solution of time-dependent partial differential equations (PDEs) The long-term outcome of his research is the development of mathematically rigorous and predictive novel numerical methods, that are deployable on HPC systems, for the discretization of a broad class of time-dependent PDEs. Dr. Del Rey Fernández's research will fit in well with not only researchers in the department but also with other departments at the University of Waterloo.

**STRINGER, Alex** (BSc, 2014, University of Guelph; MSc, 2015; PhD, exp 2021, both from the University of Toronto), Assistant Professor, Dept. of Statistics and Actuarial Science, July 1, 2021 – June 30, 2024. Mr. Stringer is currently completing his PhD in Statistical Sciences at the University of Toronto. His research focuses on the theory and models for describing complex data with Bayesian inference and his research program has impressive breadth and depth. He will nicely complement our department's growing strength in Bayesian methods and applications.

**Probationary-Term Reappointments**

**STEBILA, Douglas**, Associate Professor, Dept. of Combinatorics and Optimization, July 1, 2021 – June 30, 2025.

**Continuing Appointment**

**TRELFORD, Ryan**, Lecturer, Office of the Dean effective July 1, 2021.

**Adjunct Appointments**

**Research**

**HARE, Kathryn**, Professor Emeritus, Dept. of Pure Mathematics, July 1, 2021 – June 30, 2024.

**MALACRIA, Sylvain** (Inria Lille), Assistant Professor, David R. Cheriton School of Computer Science, February 1, 2021 – June 30, 2024.

**Adjunct Reappointments**

**Instructor**

**ALI, Javid**, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**KAMAL, Zille Huma**, Lecturer, David R. Cheriton School of Computer Science, May 1, 2021 – August 31, 2021.

**LENNOX, Michelle**, Lecturer Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**LI, Chuning**, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**LI, Raymond**, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**Cross Reappointments**

**MOSCA, Michele** (Professor, Dept. of Combinatorics & Optimization), in the Dept. of Applied Mathematics, July 1, 2021 – June 30, 2024.

**Graduate Students reappointed as Part-time Lecturers**

**SCHULDINER, Pavel**, Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**Postdoctoral Fellows appointed as Part-time Lecturers**

**KIM, Mihyun**, Dept. of Statistics and Actuarial Science, September 1, 2021 – August 31, 2022.

**Postdoctoral Fellow reappointed as part-time Lecturers**

**DONG, Gracia**, Dept. of Statistics and Actuarial Science, May 1, 2021 – August 31, 2021.

**B. ADMINISTRATIVE APPOINTMENTS**

**CLARKE, Charlie**, Associate Dean, Innovation and Entrepreneurship, Office of the Dean, April 1, 2021 – June 30, 2024.

**ZHU, Mu**, Director, Data Science Program, Office of the Dean, September 1, 2021 – June 30, 2024.

Change in Appointment

**HOEY, Jesse**, Associate Dean, Innovation and Entrepreneurship, Office of the Dean , (*ref.* Dean's Report to Senate, January 2020)

From: January 1, 2020 – June 30, 2022

To: January 1, 2020 – March 31, 2021

**C. RESIGNATIONS**

**WALLMAN, Joel**, Assistant Professor, Dept. of Applied Mathematics, effective June 1, 2021.

**D. SABBATICALS** (already approved by the Board of Governors)

**BLAIS, Eric**, Associate Professor, David R. Cheriton School of Computer Science, September 1, 2021 – August 31, 2022 with 93.3% salary.

**LAW, Edith**, Associate Professor, David R. Cheriton School of Computer Science, September 1, 2021 – August 31, 2022 at 93.3% salary.

**YANG, Fan**, Assistant Professor, Dept. of Statistics and Actuarial Science, January 1, 2022 – June 30, 2022, with 100% salary.

**E. SPECIAL LEAVE**

**EMERSON, Joseph**, Associate Professor, Dept. of Applied Mathematics, May 1, 2021 – April 30, 2022. This is an unpaid leave.



Mark Giesbrecht  
Dean

**UNIVERSITY OF WATERLOO**  
**REPORT OF THE DEAN OF SCIENCE TO SENATE**  
**May 17, 2021**

**For information:**

**A. *APPOINTMENTS***

**Probationary Term Reappointment**

**MESSIER, Julie**, Assistant Professor, Department of Biology, July 1, 2022 to June 30, 2025 and one year covid-19 extension July 1, 2025 to June 30, 2026. [B.Sc., Université du Québec à Montréal (2006); M.Sc., McGill University (2009); Ph.D. University of Arizona (2015).]

**Definite Term Reappointment – Full-Time**

**STEELMAN, Colby**, Lecturer, Department of Earth and Environmental Sciences, August 31, 2021 to August 29, 2023. [B.Sc., University of Waterloo (2007); Ph.D., University of Waterloo (2012).]

**Adjunct Appointments**

**Other**

**PARKS, Jen**, Assistant Professor, Departments of Earth and Environmental Sciences and Civil and Environmental Engineering, March 1, 2021 February 28, 2024.

**Graduate Supervision and Other**

**KELLY, Erin**, Assistant Professor, Department of Biology, April 1, 2021 to June 30, 2024.

**Graduate Supervision, Graduate Instruction and Research**

**LAEER, Christoph**, Assistant Professor, School of Pharmacy, April 1, 2021 to March 31, 2024.

**Adjunct Reappointments**

**Graduate Supervision**

**LEE, Sung-Sik**, Professor, Department of Physics and Astronomy, May 1, 2021 to April 30, 2024.

**Graduate Supervision and Research**

**BOBIER, William (Bill)**, (Professor Emeritus), School of Optometry and Vision Science, April 1, 2021 to March 31, 2024.

**SORKIN, Rafael**, Professor, Department of Physics and Astronomy, May 1, 2021 to April 30, 2026.

**Cross Appointment**

**NGO, William**, Research Assistant Professor, School of Optometry and Vision Science, cross appointed to Department of Biology, May 1, 2021 to June 30, 2024.

**Changes in Appointment**

**ALSABBAGH, Wasem**, Assistant Professor, School of Pharmacy, second probationary appointment extended one year (Covid-19). New end date June 30, 2023.

**B. ADMINISTRATIVE REAPPOINTMENT**

**GLERUM, Moira**, Associate Chair, Graduate Studies, Department of Biology, April 1, 2021 to June 30, 2024.



R.P. Lemieux  
Dean



**University of Waterloo**  
**SENATE GRADUATE & RESEARCH COUNCIL**  
**Report to Senate**  
**17 May 2021**

Senate Graduate & Research Council met on 12 April 2021 and agreed 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**

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**GRADUATE STUDIES - ACADEMIC CALENDAR CHANGES**

1. **Motion:** To approve new text for Posthumous Degrees and Certificates, effective spring term 2021, as presented at Attachment 1.

**Rationale:** New text for the Graduate Studies Academic Calendar has been generated in order to formalize the University's practices regarding the process and criteria for granting graduate posthumous degrees. The proposed wording is consistent with what is anticipated will be proposed for undergraduate posthumous degrees (i.e., percentage of coursework and possibility of degree of enrollment certificate). In the interest of ensuring such consistency, the current criteria will not be published in the academic calendar until confirmation from the Registrar's Office of the approved undergraduate criteria.

**PROGRAM CHANGES**

**Faculty of Arts**

1. **Motion:** To approve 6 updates (re: admission averages, admission requirements) to the Master of Accounting (MAcc), effective 1 May 2023, as presented at Attachment 2.

**Rationale:** These changes to the admission requirements align with the recent changes made to the Bachelor of Accounting and Financial Management (BAFM) program and associated courses for students entering that program in the 2019-20 and later years. These students will enter the MAcc program in January 2024 and later years. The changes to the BAFM program and related changes to the MAcc admission requirements are being made to support SAF's vision to ensure students graduating from these programs are financial leaders prepared for success in innovative organizations. These changes to the admission requirements will also affect and be appropriate for Math/CPA and Biotech/CPA program graduates that wish to apply to the MAcc program.

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

Charmaine Dean  
Vice President, Research & International

March 29, 2021

TO: Kathy Winter, Privacy Officer and Assistant University Secretary,  
Senate Graduate and Research Council

FROM: Jeff Casello, Associate Vice-President, Graduate Studies and Postdoctoral Affairs

RE: Graduate Studies Academic Calendar changes

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**Items for approval:**

*Posthumous Degrees and Certificates.*

**Description and rationale for proposed changes:**

*New text for Posthumous Degrees and Certificates has been generated for the Graduate Studies Academic Calendar (GSAC) to formalize the University of Waterloo's practices regarding the process and criteria for granting posthumous degrees.*

*The proposed wording is consistent with what is anticipated will be proposed for UG posthumous degrees (i.e., percentage of coursework and possibility of degree of enrollment certificate). In the interest of ensuring such consistency, the current criteria will not be published in the GSAC until we receive confirmation from the RO of the approved UG criteria. However, the criteria will go into effect as of Spring 2021.*

**Proposed effective date:** Term: Spring Year: 2021

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/graduate-studies-academic-calendar/general-information-and-regulations>

**Proposed Graduate Studies Academic Calendar content:**

**Posthumous Degrees and Certificates**

Posthumous credentials can be granted to a graduate student who, at the time of their death, was admitted to, or actively pursuing, a University of Waterloo graduate degree.

If a student is terminally ill, similar criteria can be used, and the approval of the degree expedited. The most senior and appropriate administrator available may deliver the degree, in person, if possible, to the student at the student's (or student's family's) request.

Typically, the student's research supervisor(s), the student's Program Director, or the Graduate Officer from the student's home department/school or program initiates the process for recommending a posthumous degree to the Faculty Associate Dean, Graduate Studies. If approved by the Associate Dean, the request is then sent to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs (AVP GSPA). The AVP GSPA and the Vice President Research and International, as co-chairs of Senate Graduate and Research Council (SGRC), will decide if the posthumous degree will be conferred.

The following criteria should be evaluated when assessing a student's eligibility for a posthumous degree:

**Proposed Graduate Studies Academic Calendar content:**

**Professional or Coursework Master's:**

Grant a posthumous degree if:

- 50% or more of the total required courses are completed successfully.
- Note: If all course requirements for the program were achieved, any Type 2 Graduate Diplomas will be recognized on the student transcript and diploma, if these additional course requirements were also met. Relevant graduate specializations will be recognized on the student transcript (not diploma), if the requirements for the specialization were completed.

Grant a certificate of degree enrolment if academic requirements for a posthumous degree are not met.

**Research-based Master's with thesis or Master's Research Paper (MRP):**

Grant a posthumous degree if:

- 50% or more of the total required courses are completed successfully;
- proficiency in the area of study has been demonstrated (e.g., through required milestones); and
- there is substantive progress on thesis/MRP research. Evidence of sufficient research progress may include refereed output(s) in the research area related to the thesis/MRP, demonstrable progress on a draft of the thesis/MRP, a thesis/MRP submitted, but not defended/graded, or a thesis/MRP that only requires electronic submission to the University.
- Note: If all course requirements for the program were achieved, any Type 2 Graduate Diplomas will be recognized on the student transcript and diploma, if these additional course requirements were also met. If applicable, a graduate research field will be recognized on the student transcript (not diploma) if the requirements for the field were completed.

Grant a certificate of degree enrolment if academic requirements for a posthumous degree are not met.

**PhD:**

Grant a posthumous degree if:

- 50% or more of the total required courses are completed successfully;
- proficiency in the area of study has been demonstrated through successful completion of comprehensive examination or other required milestones; and
- there is substantive progress on thesis research. Evidence of sufficient research progress may include a research proposal, refereed output(s) in the research area related to the thesis, a draft of the thesis, a thesis submitted, but not defended/graded, or a thesis that only requires electronic submission to the University.
- Note: If all course requirements for the program were achieved, any Type 2 Graduate Diplomas will be recognized on the student transcript and diploma, if these additional course requirements were also met. If applicable, a graduate research field will be recognized on the student transcript (not diploma) if the requirements for the field were completed.

Grant a master's degree rather than a PhD where criteria related to thesis progress is not met, but work would satisfy other requirements for posthumous degree.

Grant a certificate of degree enrolment if academic requirements for a posthumous master or PhD degree are not met.

Prior to form submission, review the [content revision instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Arts

**Program:** Master of Accounting (MAcc)

**Program contact name(s):** Stephanie Cooper (Grad Coordinator – Currently on mat leave, please contact MAcc@uwaterloo.ca), Dan Rogozynski (Program Director), David Ha (Program Associate Director)

**Form completed by:** Stephanie Cooper, Dan Rogozynski, David Ha

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the SGRC Course/Milestone-New/Revision/Inactivation form ([PC docx version](#) or [MAC docx version](#)).

- 1) *Change the minimum admission average requirement to include courses taken in the last two years of the undergraduate program, instead of the last three years.*
- 2) *Change the admission requirement for students in the Bachelor of Accounting and Financial Management program to include completion of the Professional Accountant Specialization.*
- 3) *Change the minimum admission requirement of the completion of a specific set of AFM courses to include the requirement of a grade of at least 60% in each course.*
- 4) *Change the minimum admission average requirement of a specific set of AFM courses from 75% to 70%, using the maximum grade achieved in a course in the case of repeated courses in the calculation of the average, instead of the first attempt.*
- 5) *Changes to the list of courses required for admission and changes to some of the course titles.*
- 6) *Add text to clarify that meeting the minimum admission requirements does not guarantee admission to the MAcc program.*

**Is this a [major modification](#) to the program?** Yes

**Rationale for change(s):**

- *These changes to the admission requirements align with the recent changes made to the Bachelor of Accounting and Financial Management (BAFM) program and associated courses for students entering that program in the 2019-20 and later years. These students will enter the MAcc program in January 2024 and later years.*
- *The changes to the BAFM program and related changes to the MAcc admission requirements are being made to support SAF's vision to ensure students graduating from these programs are financial leaders prepared for success in innovative organizations.*
- *These changes to the admission requirements will also affect and be appropriate for Math/CPA and Biotech/CPA program graduates that wish to apply to the MAcc program.*

**Proposed effective date:** Term: Spring Year: 2023

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/graduate-studies-academic-calendar/arts/school-accounting-and-finance/master-accounting-macc>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>ADMISSION REQUIREMENTS</b></p> <p><b>Minimum requirements</b></p> <ul style="list-style-type: none"> <li>- Successful completion of any of the following University of Waterloo four-year Honours undergraduate degrees with at least a 75% average across all courses taken in the last three years: <ul style="list-style-type: none"> <li>▪ Bachelor of Accounting and Financial Management</li> <li>▪ Bachelor of Math/Chartered Professional Accountancy Studies, or</li> <li>▪ Bachelor of Science/Chartered Professional Accountancy Studies</li> </ul> </li> <li>- Completion of the following set of <del>Accounting and Financial Management (AFM)</del> courses with at least a 75% average across all courses, calculated using the <del>grade from the first attempt</del> at a course in the case of repeated courses: <ul style="list-style-type: none"> <li>▪ <del>AFM 311 Connections to Ethical Context</del></li> <li>▪ AFM 341 Accounting Information Systems</li> <li>▪ <del>AFM 351 Audit Strategy</del></li> <li>▪ AFM 362 Taxation 1</li> <li>▪ <del>AFM 363 Taxation 2</del></li> <li>▪ AFM 373 Cases and Applications in Corporate Finance or AFM 476 <del>Cases and Applications in Corporate Finance</del></li> <li>▪ AFM 391 Intermediate Financial Accounting 2</li> <li>▪ <del>AFM 401 Accounting Theory</del></li> <li>▪ AFM 433 Business Strategy</li> <li>▪ <del>AFM 462 Taxation 3 for Public Accountants</del></li> <li>▪ <del>AFM 479 Cases and Applications in Finance II or AFM 424 Equities and AFM 322 Derivatives or ACTSC 371 Introduction to</del></li> </ul> </li> </ul>	<p><b>ADMISSION REQUIREMENTS</b></p> <p><b>Minimum requirements</b></p> <p><u>To be considered for admission to the MAcc program, students must meet these minimum requirements:</u></p> <ul style="list-style-type: none"> <li>- Successful completion of any of the following University of Waterloo four-year Honours undergraduate degrees, with at least a 75% average across all courses taken in the last <u>two years of the program</u>: <ul style="list-style-type: none"> <li>▪ Bachelor of Accounting and Financial Management, <u>with completion of the Professional Accountant Specialization</u></li> <li>▪ Bachelor of Math/Chartered Professional Accountancy Studies, or</li> <li>▪ Bachelor of Science/Chartered Professional Accountancy Studies</li> </ul> </li> <li>- Completion of the following set of courses, <u>with a grade of at least 60% in each course and with at least a 70% average across all courses</u>, calculated using the <u>maximum grade in a course</u> in the case of repeated courses: <ul style="list-style-type: none"> <li>▪ <u>AFM 273 Financial Instruments and Capital Markets or AFM 272 Global Capital Markets</u></li> <li>▪ <u>AFM 274 Introduction to Corporate Finance or AFM 372 Corporate Finance</u></li> <li>▪ <u>AFM 291 Intermediate Financial Accounting I</u></li> <li>▪ AFM 311 <u>Professional Ethics</u></li> <li>▪ <u>AFM 321 Personal Financial Planning</u></li> <li>▪ AFM 341 Accounting Information Systems</li> <li>▪ <u>AFM 362 Taxation 1 - Corporate Taxation</u></li> <li>▪ AFM 373 Cases and Applications in Corporate Finance or AFM 476 <u>Corporate Financial Decision Making</u></li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><del>Investments and MATBUS</del>  <del>470 Derivatives</del></p> <ul style="list-style-type: none"> <li>▪ AFM 481 Cost Management Systems</li> <li>▪ AFM 482 Performance Measurement and Organization Control</li> <li>▪ AFM 491 Advanced Financial Accounting</li> </ul>	<ul style="list-style-type: none"> <li>▪ <u>AFM 382 Cost Management Systems</u></li> <li>▪ AFM 391 Intermediate Financial Accounting II</li> <li>▪ AFM 433 Business Strategy</li> <li>▪ <u>AFM 451 Audit Strategy</u></li> <li>▪ AFM 462 <u>Advanced Taxation</u></li> <li>▪ AFM 482 Performance Measurement and Organization Control</li> <li>▪ AFM 491 Advanced Financial Accounting</li> </ul> <p><u>Note: Simply meeting these minimum requirements does not guarantee admission to the MAcc program.</u></p>

**How will students currently registered in the program be impacted by these changes?**

*Not applicable – students currently registered in the program will not be impacted by these changes.*

**Department/School approval date** (mm/dd/yy): 01/24/20

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/01/2020

**Faculty approval date** (mm/dd/yy): 03/16/21

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

**Senate approval date** (mm/dd/yy) (if applicable):

## **Vice-President, Research & International Report to Senate May 2021**

### **Waterloo International**

In March 2021, Waterloo International facilitated the signing of four agreements as follows:

1. Graz University of Technology, Austria, Student Mobility Agreement
  - This agreement signed with TU Graz falls under the overarching student mobility agreement signed in 2015 and allows student and staff exchange both to and from TU Graz to apply to access funding under the Erasmus IIA. It includes students from our Engineering and Math Faculties and those from TU Graz's Electricity and Energy, Mechanics and Metal Trades, Database and Network Design and Administration (Computer Science) Faculties
2. Politecnico di Milano, Italy, Student Mobility Agreement
  - This is a renewal of an established exchange agreement that was originally signed in 2011 which allows students from Waterloo's Faculty of Engineering to go on exchange with their Schools of Engineering and the School of Architecture Urban Planning and Construction Engineering.
3. Malmo University, Sweden, Student Mobility Agreement
  - This agreement is a renewal of an established exchange agreement that was originally signed in 2008 between Malmo and the University of Waterloo. It includes participation from the Faculties of Arts, Environment, Health, Math and Science.
4. University of Leeds, United Kingdom, Student Mobility
  - This agreement is a renewal of an established exchange agreement that was originally signed in 1988 with University of Leeds. It is a University-wide agreement.

### **Awards and Distinctions**

Waterloo received notice of six new Award winners during this period:

- **Haim Falk Award for Distinguished Contribution to Accounting Thought: Ken Klassen** (Arts, School of Accounting and Finance)

This award, sponsored by the Canadian Academic Accounting Association, is intended to stimulate scholarly thinking and research in Canada by giving widespread recognition to excellence in scholarly achievement that clearly contributes to the advancement of accounting thought. *“Ken Klassen is widely perceived to be the most distinguished tax*

*professor in Canada. He has a distinguished reputation among Canadian and US academics, as well as Canadian tax practitioners. His insights on tax issues are highly sought after, and valued, by academics, tax professionals and government regulators.”*

- **Canadian Cancer Society Awards for Excellence in Cancer Research: 2020 O. Harold Warwick Prize: Geoffrey Fong** (Arts, Psychology)  
[Embargoed until May 12]

Since 1993, the Canadian Cancer Society (CCS) has recognized outstanding contributions to Canadian cancer research by awarding CCS Awards for Excellence in Cancer Research. The O. Harold Warwick Prize is named after Dr Warwick, a pioneering researcher in cancer control and treatment, who became the first executive director of both the former National Cancer Institute of Canada and the Canadian Cancer Society. This prize is given annually to an investigator whose contributions have led to significant accomplishments in cancer control research. This award comes with a \$20,000 prize to support the awardee’s research program.

- **2020 Melinda S. Meade Distinguished Scholarship Award in Health and Medical Geography: Susan Elliott** (Environment, Geography and Environmental Management)

This award seeks to recognize individuals who have made outstanding contributions to the advancements of health and/or medical geography research.

- **Canada’s Clean 50 list for Education & Thought Leadership: Sarah Burch**, (Environment, Geography and Environmental Management)

Canada’s Clean50 offers recognition to Canada’s leaders in sustainability for their contributions over the prior two years. The Clean50 was created not only to recognize remarkable and inspiring leaders, but also to attempt to connect those leaders in order to bridge those gaps, and build connections that might not otherwise occur.

- **Fellow of the Association for Psychological Science (APS): Abigail Scholar** (Arts, Psychology)

This honour recognizes Scholar’s “*sustained outstanding contributions to the advancement of psychological science*” and “*...places her in the company of the most prominent scientists in our discipline.*”

- **Donald O. Hebb Distinguished Contribution Award, Canadian Society for Brain, Behaviour, and Cognitive Science (CSBBCS): Derek Besner** (Arts, Psychology) (to be awarded in June):

This award is made to an individual who has made a significant contribution to the study of brain, behaviour, and cognitive science.



## 2021 Faculty of Arts Award Recipients - Excellence in Research

- **Roy Brouwer (Economics)**

In his role as Executive Director of the Water Institute and through his own research, Roy Brouwer embodies the ideals of the University of Waterloo. With a focus on environmental economics, his work and contributions are highly interdisciplinary, international, and addresses real and pressing problems relevant to societies and life on the planet.

- **Stephanie Denison (Psychology)**

Stephanie Denison is an outstanding developmental psychologist who has made major contributions to our understanding of cognitive development. Viewed as a rising star by colleagues near and far, her work has, among other impacts, led psychologists to rethink how social and statistical knowledge, seemingly disparate areas, are connected from early in life.

- **Dan Henstra (Political Science)**

Dan Henstra's research on climate disaster risk and preparedness has had a significant impact on public policy and often attracts major media coverage. Whether one considers publications, success in winning competitive research grants, or impact on public policy, his performance has been extraordinary.

- **Imre Szeman (Communication Arts)**

Imre Szeman's research accomplishments throughout his career have been outstanding. His inspiring interdisciplinary research covers energy humanities, environmental studies, and social and political philosophy, which is actively applied through his work with the Petrocultures Research Group, the International Panel on Behavior Change, and the Canadian International Council, and more. In 2020, he reached the remarkable career achievement as Fellow of the Royal Society of Canada.

## Canada Research Chair

Waterloo secured one Canada Research Chair in April 2021.

- **Ning Jiang**, Tier 2 NSERC New, Chair in Artificial Intelligence for Human-centered Human-machine Interfaces, Engineering, Systems Design Engineering, \$100K/year for 5 years

## CFI John R. Evans Leaders Fund (JELF)

Waterloo was awarded two CFI JELF and one CFI JELF partnership awards in April 2021 that totalled **\$362,000**.

1. **Kelsey Leonard** (Environment): *Chair in Indigenous Waters, Climate and Sustainability\**; CFI-JELF partnership; \$125,000  
\*Infrastructure to support Indigenous-based CRC
2. **Jason Au** (Health, Kin): *Infrastructure for advanced hemodynamics research*; \$100,000

3. **Chul Min Yeum** (ENG, Civil and Environmental Engineering): *Infrastructure for Advancing Vision-Based Structural Assessment Technologies*; \$137,000

### Tri-Council Funding

In April 2021, Waterloo secured an additional **six awards** from non-profit sponsors totalling **\$171,696**.

1. **Centre for Bioengineering and Biotechnology**: Praxis Spinal Cord Institute, support for Indigenous community in innovation activities, \$50,000
  - Increase partnerships with the public and not-for-profit sectors to catalyze important policy development
2. **Rashmee Singh** (Arts, Sociology and Legal Studies): *A Partnership to Evaluate the Impact of COVID-19 on Criminal Justice and Community Responses to Domestic Violence: The Realities of Victim Safety and Offender Accountability*, \$24,912
3. **Heather Hall** (ENV, School of Environment, Enterprise and Development): *Rural Canada and COVID-19: Understanding the impacts, responses, and recovery needs for rural resilience*, \$24,246
4. **Marie-Claire Cordonier-Segger** (ENV, School of Environment, Enterprise and Development): *Partnership for Sustainable COVID-19 Economic Recovery: Canadian Law/Policy/Action Research Engaging across the Commonwealth*, \$23,668
5. **Momani, Bessma** (Arts, Political Science): *Partnering to Improve Immigrant Women Entrepreneurs' Success*, \$24,661
6. **Cameron McCordic** ((ENV, School of Environment, Enterprise and Development): *Catalyzing Local Sustainable Development: Assessing Municipal Readiness for SDG Implementation*, \$24,209

### SSHRC Insight Grants

This year, Waterloo submitted 33 applications and were successful on 18 (55%). Funding amount totalled **\$2,862,110**, which represented an increase of 30% from last year (\$2,194,259), despite the decrease in number of applications from the previous year (n= 40 last year). Waterloo's success rate was 55% compared to the National success rate of 53%.

In 2020/21, Waterloo submitted 19 Partnership Engage grants (up from 14 last year) and had an 83% success rate compared with the National success rate of 66%.

### International Research Partnership Agreements

- **Brainport Development NV, PhotonDelta, HighTechXL, Waterloo Institute for Nanotechnology (WIN)**

This new MOU enables entrepreneurial WIN members and their students to find research and business partners in the Eindhoven region and explore their engagement in EU markets. Proposed collaborative activities beyond nanotechnology is encouraged and can be explored in consultation with other appropriate offices at the University of Waterloo.

- **International Collaboration for Cancer Classification Research (IC3R) Consortium.**

The mission of the IC3R Consortia is to provide standards for research and appraisal of evidence for tumour classification and cancer diagnosis, permitting rapid translation of tumour research into clinical diagnostic practice. This will be accomplished through an international collaboration with partners in France, Belgium, Italy, USA, Australia, Japan, Singapore and including the Laboratory for Knowledge Inference in Medical Image Analysis, (KIMIA Lab) at the University of Waterloo, the only Canadian partner. The KIMIA Lab under the Directorship of **Hamid Tizhoosh** conducts research at the forefront of mass image data in medical archives using machine learning schemes with the ultimate goal of extracting information that cannot only support a more speedy and accurate diagnosis and treatment of many diseases but also, and more significantly, establish new quality assurance based on mining of collective knowledge and wisdom.

### **Bordeaux Research Partnership**

2021 marks the ten-year collaboration between University of Waterloo and University of Bordeaux (UBx). This collaboration covers diverse research fields including artificial intelligence and health; functional materials; nanoscience; health and environment; water; energy and aging. The intent of this collaboration is to facilitate strong research partnerships, advance grand challenge research and leverage significant new funding opportunities.

The joint research grant program, which started in 2015, has funded 34 projects, totaling over \$900,000. These projects have subsequently generated funding for both institutions, including over \$920,000 in new grants awarded to Waterloo researchers, and over €1,000,000 in new grants awarded to UBx researchers. Moreover, this collaboration has resulted in over 30 new innovations and technologies (broadly defined), 135 joint publications (as per InCites data from 2009 to 2020), one spin-off company and one patent filed.

Waterloo is currently in the process of renewing a strategic partnership agreement with the University of Bordeaux.