



ONE HUNDRED AND TWENTY-FOURTH CONVOCATION

# CONVOCATION

THURSDAY  
JUNE  
**16**  
2022

**FACULTY OF MATHEMATICS**

Convocation Ceremony

# CONVOCATION

*On this day, as the University of Waterloo awards degrees and celebrates the achievements of a new generation of graduates, the members of the University and its guests share in a 900-year-old ritual called convocation.*

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THURSDAY, JUNE 16, 2022

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# Message from the Chancellor

*Welcome graduands, family members,  
and friends to 2022 Spring Convocation.*

As the eleventh chancellor of the University of Waterloo, it is my honour to preside over the rite of convocation. Our University community shares in your excitement and celebrates your hard work and dedication as we mark this significant milestone.

The University of Waterloo has a tradition of developing talent for a complex future, and you are no exception. As you stand at the precipice of this complex future, you are certain to encounter many obstacles. The knowledge and skills you have earned during your time here will provide you with the tools necessary to overcome these challenges.

Our institution is renowned for its laser-focused pursuit of innovation both in pedagogy and research. It is likely what led you to Waterloo, and what drove you to success.

Today's ceremony honours your accomplishments. I encourage you to take a moment to recognize your family, friends, and members of the campus community who provided support during your time at Waterloo.

Convocation is a time to reflect and celebrate, but also to look forward. As you cross the stage today rest assured that your hard work has led to your successes thus far, and that same work ethic will serve you well in your next chapter.

*As a graduand, you bear the privilege and responsibility of being forever linked to the spirit and values of this distinguished institution. Wherever your life may lead, I hope you will continue to pursue shaping a better, more equitable world through your careers and community involvement.*



A handwritten signature in black ink that reads "Dominic Barton". The signature is written in a cursive, flowing style.

**DOMINIC BARTON**  
*Chancellor*

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**“THE UNIVERSITY OF WATERLOO HAS A TRADITION OF DEVELOPING  
TALENT FOR A COMPLEX FUTURE, AND YOU ARE NO EXCEPTION.”**

# Message from the President and Vice-Chancellor

*Congratulations to our graduating class. We are thrilled to welcome your family and friends to celebrate this momentous occasion. It is our honour to celebrate this year's convocation with you.*

During your time at the University of Waterloo, you have persevered to overcome many challenges, including a pandemic. Your degree recognizes this hard-work and is a testament to the effort and dedication you put forth during your studies.

Your experience at Waterloo is more than the knowledge you gained in the classroom or the research you undertook in the lab. It is about the relationships and networks you forged on campus and online. Our institution's rich history and the success of our alumni is rooted in community. As you transition from student to alumni, I hope you will continue to stay connected with Waterloo.

The University's motto "Concordia cum veritate" means "in harmony with truth." As you begin the next chapter of your journey, I encourage you to think unconventionally. We live in a world mired in geo-political, environmental, and health challenges.

Regardless of your discipline, you have a unique opportunity to make a lasting difference in your community and in the world. Seeking out ways to pursue your passions and uncover innovations in whatever you do.

I encourage you to take what you have learned at Waterloo to help shape our world's future for the better.

As graduates, you are now a member of this institution's strong alumni community. Follow the successful footsteps of those before you, or trail blaze your own. You now have the tools to make a lasting impact on the world around you.

*On behalf of the University of Waterloo, I wish you the very best in the journey ahead.*



A handwritten signature in black ink that reads "Vivek Goel". The signature is written in a cursive, flowing style.

**VIVEK GOEL**  
CM

*President and Vice-Chancellor*

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**“AS YOU BEGIN THE NEXT CHAPTER OF YOUR JOURNEY,  
I ENCOURAGE YOU TO THINK UNCONVENTIONALLY.”**

# Message from the Alumni Council President

*Congratulations Class of 2022!*

On behalf of the University of Waterloo's Alumni Council and your fellow alumni, congratulations on the successful completion of your degree. You demonstrated hard work, dedication and resilience. We are proud of you and delighted to welcome you as the newest members of our community.

Graduation is a significant milestone for you both personally and professionally. I encourage you to celebrate your achievement and take time to appreciate the people in your life that helped you along the way – your family, friends, classmates, and teachers.

As you look ahead to the next phase of your life, I'm confident that your time at UWaterloo has prepared you well. You have the expertise, creativity and resourcefulness to tackle whatever problem you choose. Longstanding practices are changing and there is opportunity for new ideas to breakthrough.

*Welcome to a network of more than 230,000 alumni, connected by their experiences at Waterloo.*

Throughout your career, I encourage you to stay connected to your alumni community. There are more than 230,000 of us and we are here to support you as you work towards your goals. You can contact Waterloo alumni from anywhere in the world – through our Global Ambassadors, Alumni Chapters and online groups.

I also hope you will join me in sharing your time, knowledge and passion with the University. It is rewarding to volunteer with other talented alumni and your unique perspective can benefit future graduates more than you know.

Congratulations once again on your graduation. You have much to be proud of and a very bright future ahead of you!

*I wish you all the best.*



*Meaghan Kimball*

**MEAGHAN KIMBALL**

BMATH '06

*President, University of Waterloo Alumni Council*

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**“THERE ARE MORE THAN 230,000 OF US AND WE ARE HERE TO SUPPORT YOU AS YOU WORK TOWARDS YOUR GOALS.”**

# Our tradition of convocation

*The ritual of convocation is a tradition that honours the roots of the University, and is, at the same time, a beginning for students who now enter a new stage in their lives.*

*We welcome guests on this celebratory occasion and thank you for being present to share in it.*

Both the symbols and the ceremony of convocation look back far beyond the beginning of the University of Waterloo, back to the centuries of university life in Western civilization which Waterloo joined six decades ago. The founders of this University were eager from the beginning to make it part of that long tradition, although they proudly asserted that they were building a new and innovative university, with close ties to industry and an emphasis on practical knowledge for building the future.

On this day, as ancient customs mix with the use of up-to-date technology and the exuberance of a new generation, Convocation connects a forward-looking university with the traditions that universities have observed as long as they have existed.

The University of Waterloo grew out of an older institution, Waterloo College. A still older one, the University of St. Jerome's College, soon became federated with it, and the College of Optometry of Ontario joined the family in 1967. Although all these institutions were newcomers compared with Oxford and Harvard and the Jagiellonian, the connection to the traditional role and style of a university remains clear.

Tradition underlies the proceedings of today's convocation, the continuity of this University with centuries of academic experience. Passion brings the proceedings to life, along with the enthusiasm with which the University recognizes new achievements and new ideas.



1960s  
CONVOCATION  
AT WATERLOO

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## A CALLING TOGETHER

Students graduate at the end of a program of study, leading to a degree with a traditional name: Bachelor, Master, or Doctor. On this day, their families and friends celebrate their success and their transition from one status in life to another. Convocation has been, for the past nine hundred years, a meeting of the whole University community at which symbols are displayed, participants wear special attire to emphasize their official roles, and speakers share their wisdom and the values that the University seeks to teach. Convocation (the name comes from Latin, which was once the chief language of higher education) is a calling together of new graduates to receive the symbols of their accomplishment, and a calling together of the older members of the University to be witnesses and join in the celebration.

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## CONNECTING WITH TRADITION

At Waterloo's first convocation in June 1960, the guest speaker was James J. Talman of the University of Western Ontario, who told the audience a little about the history of Waterloo County and its industry. "The greatest resource we still have is the minds of the people," Talman said, "and this resource still remains to be developed to its full potential. The people of the Grand Valley clearly appreciate this fact. As we see the success with which they developed the physical resources in the past, we can only conclude that they will be just as successful in developing the intellectual resources of the future. The University of Waterloo can look forward to a brilliant and successful future."

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## THE PROCESSION

The most impressive part of the ceremony may be the procession that begins it. The graduating students will come in first, and as they fill up the main body of the hall they will give the impression that today's ceremony really is, as convocation used to be, a ceremonial meeting of the whole University community.

After the graduating students have come in, faculty members enter walking two by two, followed by University officials, all in their academic finery. Near the end of the procession, a selected faculty member will carry the mace, a traditional symbol of the University's authority.

The final party to arrive is the Chancellor's party. The Chancellor is the ceremonial head of the University of Waterloo. The Chancellor presides over Convocation ceremonies every June and October and awards all degrees, diplomas and certificates, including honorary degrees. The Chancellor addresses graduands and inspires them at these ceremonies.

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## THE MACE

This solid silver and ebony wand was given to the University in 1965 by the family of the late Stanley F. Leavine and was designed by Toronto artist Eric Aldwinckle and crafted by silversmith Harold Stacey to symbolize the University as it was at that time. It displays lions, chevrons, and the shield of the province of Ontario, from which the University holds its charter to grant degrees.

The symbolic theme of the mace is unity amid diversity, and tension in the creative intellectual process that strives to bring forth a new individual. The design of the mace interprets this theme in the idiom of the life process: from the seeds at the base of the stave the mace grows in unity and strength until it differentiates by a four-fold separation into diverse elements.







The four-fold diversity is significant because of the four faculties existing at the time the mace was presented to the University and as well of the four church-related colleges federated and affiliated with the University. These diverse elements together form a crown, and the point of the crown, while tending toward a union, do not quite touch. They remain as individuals suspended in tension and yet engaged in deep harmony. This creative process is focused not on the traditional spherical orb of static perfection but rather on an elliptical silver ovum – the egg-shaped symbol of creativity – the marvelous potential of a new individual life.

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## THE COAT OF ARMS AND MOTTO

The lions and chevrons also appear on the shield that is the University's coat of arms and that is imprinted on the graduates' diplomas. Derived from traditional heraldry, it has been used since 1961 and was registered with the Court of the Lord Lyon in 1987. The shield uses the official colours of gold, black, and white, and its symbols refer to the University's base in the cities of Kitchener and Waterloo. The unusual double chevrons were borrowed from the coat of arms of Lord Kitchener of Khartoum, and the red lions are like those on the coat of arms of the Duke of Wellington, victor at the 1815 Battle of Waterloo. The lions also reflect the tough and innovative spirit of the University's founders and builders, and the black and white in the chevron are the colours of Prussia, reflecting the Germanic background of many Waterloo County settlers. Beneath the shield appears the University's motto, *Concordia cum veritate*, "In harmony with truth."

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## DEGREES AND HONORARY DEGREES

Presentations of earned and honorary degrees, and the speeches associated with them, take up most of the time at Convocation. Undergraduate and graduate degrees are awarded in each of our six faculties: the faculties of Arts, Engineering, Environment, Health, Mathematics and Science. Also included are students who attended our colleges, St. Jerome's University, St. Paul's University College and Renison University College.

In addition to "earned" degrees awarded to students who have met the requirements through years of effort, the University of Waterloo confers "honorary" degrees to individuals who have been designated by the Senate, the University's academic governing body, as deserving special honour. They, too, receive hoods, lined with the colour of the faculty that nominated them or with specially designated colours for other kinds of achievement.

By tradition, public service is recognized with a Doctor of Laws degree even in a university that does not regularly teach law. The individuals receiving honorary degrees are introduced during the ceremony, and a brief citation is read to explain their various accomplishments deserving of recognition by a university. One of the honorands will address convocation after the degree has been given.

# Honorary Doctorates

An honorary degree (*honoris causa*) is the highest honour conferred by the University. Through the conferring of honorary degrees, the University of Waterloo seeks to recognize outstanding achievement, whether academic or through service to society.



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## DIANNE SAXE

LLB, PhD

Doctor of Environmental Studies, *honoris causa*

TUESDAY, JUNE 14 / AFTERNOON CEREMONY

Dr. Dianne Saxe is one of Canada's leading environmental lawyers. She has made significant contributions to Ontario as a practitioner of environmental law for over 45 years, as an influential author of several important environmental law books and articles, and, most recently, as the Environmental Commissioner of Ontario. Throughout her career, Dr. Saxe has informed Ontarians of their environmental rights and duties, and of the crucial importance of addressing environmental challenges. As the Environmental Commissioner of Ontario, she played a key role in contributing to the public life of Ontarians through extensive analysis of the government's commitments to protecting the environment and engaging the public in conversations about Ontario's sustainable future.



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## CAROL LEAMAN

BA, MAcc

Doctor of Letters, *honoris causa*

WEDNESDAY, JUNE 15 / EVENING CEREMONY

Carol Leaman holds a Master of Accounting Degree as well as 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). As a visionary, serial entrepreneur, and community leader who personifies the Waterloo spirit of innovation, she is committed to creating work environments that foster the success of their employees. Leaman is currently the CEO of Axonify and has overseen the successful acquisition of numerous companies such as MLevel (acquired by Axonify), Fakespace (acquired by Mechdyne Corporation), RSS Solutions (acquired by Visiprise Inc.), and PostRank (acquired by Google).



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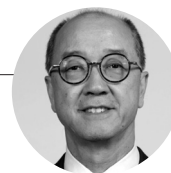
## JOHN HELLIWELL

OC, BComm, MA, DPhil, LLD

Doctor of Letters, *honoris causa*

WEDNESDAY, JUNE 15 / MORNING CEREMONY

Professor John Helliwell is acclaimed for his pioneering and prolific work in macro-economic modeling, energy economics and policy, and global trade flows. He 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.



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## TONY CHAN

BS, MS, PhD

Doctor of Mathematics, *honoris causa*

THURSDAY, JUNE 16 / MORNING CEREMONY

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 also holds an Honorary Doctorate from the University of Strathclyde. After serving as president of The Hong Kong University of Science and Technology for nearly a decade, Chan became the third president of the King Abdullah University of Science and Technology in 2018. He is a member of the US National Academy of Engineering, and a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), the American Association for the Advancement of Science (AAAS) and Society for Industrial and Applied Mathematics (SIAM). Chan was also awarded the 2020 SIAM Prize for Distinguished Service to the Profession.

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**VIRGINIA ANN HEATH**

BSc, MSc, MDCM  
and

**JOHN WILLIAM HEATH**

BSc, MDCM, FRCP (C)

Doctors of Science, *honoris causa*

FRIDAY, JUNE 17 / MORNING CEREMONY



Dr. Virginia Ann Heath completed a Bachelor of Science degree at the University of British Columbia, and Dr. John William Heath completed his Bachelor of Science 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 2013 NSERC Synergy award for collaborative research and they have hosted numerous Waterloo students.

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**DOUGLAS FREGIN**

CM

Doctor of Engineering, *honoris causa*

FRIDAY, JUNE 17 / EVENING CEREMONY



Douglas Fregin has been a leader in the telecommunications industry for over 35 years. He co-founded Research In Motion (RIM), which launched the world's first smartphone (the BlackBerry 5180). In 2013, he co-founded Quantum Valley Investments, driving the Region of Waterloo to the forefront of the global quantum technologies industry. He has donated millions towards educational and research programs at the University of Waterloo, enabling the establishment of the Waterloo Undergraduate Program in Nanotechnology (2005), the Waterloo Institute of Nanotechnology (2009), and the Mike & Ophelia Quantum-Nano Centre (2012). He received a Technical Emmy Award with Kodak and the National Film Board of Canada, and was awarded the Queen Elizabeth II Diamond Jubilee Medal in recognition of his achievements. In 2016, he was appointed a Member of the Order of Canada.

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**VALERIE DAVIDSON**

BEng, MSc, PhD

Doctor of Engineering, *honoris causa*

SATURDAY, JUNE 18 / AFTERNOON CEREMONY



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. Davidson 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.

# Distinguished Professors Emeriti

The Distinguished Professor Emeritus designation is made to faculty members who have had a distinguished record of service in teaching and research in the University. The honorary award is granted upon, or shortly after, retirement.



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## MARK E. HAVITZ

BSc, MSc, PhD

Department of Recreation  
and Leisure Studies

TUESDAY, JUNE 14 / MORNING CEREMONY

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. Havitz was honoured with a Fellow in the Academy of Leisure Sciences in 2000 and received the Theodore and Franklin Roosevelt Award from the National Recreation and Park Association in 2017. In 2021, he also received the Leisure Scholar Award, the highest recognition bestowed by the Canadian Association of Leisure Studies.



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## STUART MCGILL

BPE, MSc, PhD

Department of Kinesiology

TUESDAY, JUNE 14 / MORNING CEREMONY

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 more than 250 scientific papers and five books, mentored more than 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.



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## ALICE KUZNIAR

BA, MA, PhD

Department of German and Slavic Studies

WEDNESDAY, JUNE 15 / AFTERNOON CEREMONY

Alice Kuzniar is one of the leading figures in German studies today, and is 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 as a leading thinker in the field of cultural studies, producing ground-breaking work in the areas of gender and queer studies as well as animal studies. Kuzniar's 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.



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## JAMES W. ST. G. WALKER

CM, FRSC, PhD

Department of History

WEDNESDAY, JUNE 15 / AFTERNOON CEREMONY

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.



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**IAN GOULDEN**

*BMath, MMath, PhD, FRSC*  
Department of Combinatorics  
and Optimization

THURSDAY, JUNE 16 / EVENING CEREMONY

Professor Ian Goulden received his PhD in Statistics from the University of Waterloo in 1979. He joined the Department of Combinatorics & Optimization in 1980, and was promoted to full professor in 1990, before retiring 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 also an accomplished administrator who served three terms as chair of Combinatorics & Optimization, and one term as dean of the Faculty of Mathematics.



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**KATHRYN HARE**

*BMath, PhD, FCMS*  
Department of Pure Mathematics

THURSDAY, JUNE 16 / EVENING CEREMONY

Professor Kathryn Hare retired from the Department of Pure Mathematics in July 2021, after joining in 1988 as the first female professor. Hare 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. Hare is a Fellow of the Canadian Mathematical Society, and the recipient of an honorary doctorate from Chalmers University, and the Faculty of Mathematics Award for Distinction in Teaching. She tirelessly served the University, notably as department chair from 2014 to 2018.



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**WILLIAM BOBIER**

*BSc, OD, MSc, PhD*  
School of Optometry and Vision Science

FRIDAY, JUNE 17 / AFTERNOON CEREMONY

Professor William Bobier completed his Bachelor of Science 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 to complete his Master of Science, 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 be become director. Bobier retired in December of 2019, after a distinguished 29-year career within the School. He remains active in research and graduate student supervision.



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**RAYMOND LEGGE**

*BSc, PhD*  
Department of Chemical Engineering

SATURDAY, JUNE 18 / AFTERNOON CEREMONY

Professor Emeritus Raymond Legge's record of scholarship, teaching, and service to the Department of Chemical Engineering and the University of Waterloo is exemplary and extends more than 37 years. He has made groundbreaking contributions to the development of biosensors, environmental monitoring and remediation, green bioprocesses, and water treatment and monitoring. Deeply committed to improving engineering education, Legge has served on more than 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 more than 7,000 students and received the Sandford Fleming Foundation Teaching Excellence Award on two occasions.

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**FLORA T.T. NG**

*BSc, MSc, PhD*

Department of Chemical Engineering



Professor Flora T.T. Ng joined the Department of Chemical Engineering at the University of Waterloo in 1987, after nearly a decade working with the Canada Centre for Mineral and Energy Technology, where she rose to assistant director, research programs. At Waterloo, her group is internationally recognized for innovation in catalytic processes and “green” chemistry. She has co-authored more than 250 journal and conference papers, delivered more than 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. She 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.

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**KEITH HIPEL**

*BASc, MASc, PhD*

Department of Systems Design Engineering

SATURDAY, JUNE 18 / EVENING CEREMONY



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 of three highly successful exchange programs with leading universities in Japan, and serving as chair of the Board of Governors of Renison University College. Hipel 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. He is also an international Member of the US National Academy of Engineering and Killam Prize Laureate.

# Honorary Member of the University

*The Honorary Member of the University designation is the highest honour a staff member can obtain at the University of Waterloo and is granted upon retirement. It recognizes the individual for outstanding service to the University as a whole, not limited to one department or faculty. For faculty members, it recognizes distinctive administrative service to the University.*



## **SALLY GUNZ**

BA, MA, MBA, LLB

School of Accounting and Finance

WEDNESDAY, JUNE 15 / EVENING CEREMONY

Sally Gunz is recognized for her teaching and research excellence in legal studies and ethical responsibilities for professionals. She exemplifies exceptional service through her work with the Faculty Association of the University of Waterloo (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.

# Guest Speakers



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## JOHN HIRDES

*BSc, MA, PhD, FCAHS*

Professor, School of Public Health

TUESDAY, JUNE 14 / MORNING CEREMONY

John 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 (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.



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## GEOFF FONG

*OC, PhD, FRSC, FCAHS*

Professor, Department of Psychology and Public Health Sciences

WEDNESDAY, JUNE 15 / AFTERNOON CEREMONY

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.



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## MARY E. THOMPSON

*BSc, MS, PhD*

Distinguished Professor Emerita

THURSDAY, JUNE 16 / AFTERNOON CEREMONY

Mary E. Thompson is Distinguished Professor Emerita of Statistics at the University of Waterloo in Waterloo. She holds a BSc from the University of Toronto, and an MS and PhD 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.



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## STEVE LAMBERT

*MEng, MSc, PhD*

Professor, Mechanical and Mechatronics Engineering

FRIDAY, JUNE 17 / EVENING CEREMONY

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.



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**KARIM S. KARIM**

BASc, MBA, PhD

Associate Vice-President,  
Commercialization and Entrepreneurship

SATURDAY, JUNE 17 / MORNING CEREMONY



Karim S. Karim received his BASc 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.

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**PAUL FIEGUTH**

BASc, SM, PhD

Associate Dean, Resources and Planning

SATURDAY, JUNE 18 / EVENING CEREMONY



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 of three textbooks, a 2010 text on *Statistical Image Processing & Multidimensional Modeling*, a 2021 text on *Complex Systems*, and an upcoming text on *Pattern Recognition*.

# Valedictorians

**Precious Nwaka** Faculty of Health

TUESDAY, JUNE 14 / MORNING CEREMONY

**Jaskaran Dhillon** Faculty of Environment

TUESDAY, JUNE 14 / AFTERNOON CEREMONY

**Ola Idris Ali** Faculty of Arts

WEDNESDAY, JUNE 15 / AFTERNOON CEREMONY

**Farzaan Nathoo-Khedri** Faculty of Mathematics

THURSDAY, JUNE 16 / AFTERNOON CEREMONY

**Marya Talha** Faculty of Science

FRIDAY, JUNE 17 / MORNING CEREMONY

**Aisosa Ohiegbomwan** Faculty of Science

FRIDAY, JUNE 17 / AFTERNOON CEREMONY

**Siddharth Kumar** Faculty of Engineering

FRIDAY, JUNE 17 / EVENING CEREMONY

**Veraj Paruthi** Faculty of Engineering

SATURDAY, JUNE 18 / MORNING CEREMONY

**Chukwunonso Jeffrey Moneme** Faculty of Engineering

SATURDAY, JUNE 18 / AFTERNOON CEREMONY

**Ellen Margarete McGee** Faculty of Engineering

SATURDAY, JUNE 18 / EVENING CEREMONY

# Distinguished Teacher Awards

*The Distinguished Teacher Award is granted to a professor or lecturer who uses their human quality and concern for the needs of the students to create lasting influence on students and on colleagues. Recipients exhibit intellectual vigour and communication skills in the interpretation and presentation of subject matter, along with evidence of educational impact beyond the classroom.*

**Robin Duncan**

BSc, PhD

Kinesiology and Health Sciences, Faculty of Health

**Lowell Ewert**

BA, JD, LL.M.

Peace and Conflict Studies, Faculty of Arts,  
Conrad Grebel University College

**Igor Ivkovic**

BMath, MMath, PhD

Systems Design Engineering, Faculty of Engineering

**Suzanne Kearns**

BSc, MSc, PhD

Geography and Environmental Management,  
Faculty of Environment

**Rick Marta**

BSc, PhD

Chemistry, Physics and Astronomy, Faculty of Science

**Rajinder Pal**

BTech, PhD

Chemical Engineering, Faculty of Engineering

**Cynthia Richard**

Pharm, PhD

School of Pharmacy, Faculty of Science

**Dan Wolczuk**

BSc, MMath

Mathematics, Faculty of Mathematics

# University Professors

*The University Professor designation recognizes faculty with exceptional scholarly achievement and international pre-eminence. Once appointed, a faculty member retains the designation until retirement.*

## **Claudio Canizares**

MASc, PhD, PEng  
Department of Electrical and Computing Engineering,  
Faculty of Engineering

## **Jennifer Clapp**

BA, MSc, PhD  
School of Environment, Resources and Sustainability,  
Faculty of Environment

## **Richard J. Cook**

BSc, MMath, PhD  
Department of Statistics and Actuarial Science,  
Faculty of Mathematics

## **John Hirdes**

BSc, MA, PhD, FCAHS  
School of Public Health Sciences,  
Faculty of Health

## **Lyndon Jones**

BSc, PhD, DSc, FCAHS  
School of Optometry and Vision Science,  
Faculty of Science

## **Robert Mann**

BSc, MSc, PhD  
Department of Physics and Astronomy,  
Faculty of Science

## **Weihua Zhang**

BSc, MSc, PhD  
Department of Electrical and Computer Engineering,  
Faculty of Environment

# Awards of Excellence in Graduate Supervision

*The award for excellence in Graduate Supervision recognizes exemplary faculty members who have demonstrated excellence in graduate student supervision. An outstanding graduate supervisor is a mentor, advisor, role model, humanist and strategist, and possesses a high level of energy and ingenuity.*

## **Jay Dolmage**

BA, MA, PhD  
Department of English Language and Literature,  
Faculty of Arts

## **Brian Forrest**

Department of Pure Mathematics,  
Faculty of Mathematics

## **Carolyn Ren**

BSc, MSc, PhD  
Department of Mechanical and Mechatronics Engineering,  
Faculty of Engineering

## **Paul Stolee**

BA, MPA, MSc, PhD  
School of Public Health Science,  
Faculty of Health

## **Gordon Wilmot**

BMath, MMath, PhD  
Department of Statistics and Actuarial Science,  
Faculty of Mathematics



# MORNING CEREMONY

Degrees and diplomas from:  
**UNIVERSITY OF WATERLOO**  
**FACULTY OF MATHEMATICS**

# Graduate Degrees

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## DOCTOR OF PHILOSOPHY

**Abualsaud, Mustafa** (Computer Science)  
“Users, Queries, and Bad Abandonment in Web Search”

**Birmpilis, Stavros** (Computer Science)  
“Fast Algorithms for Computing with Integer Matrices: Normal Forms and Applications”

**Ceha, Jessy** (Computer Science)  
“Affective Expressions in Conversational Agents for Learning Environments: Effects of Curiosity, Humour, and Expressive Auditory Gestures”

**Chang, Jumyung** (Computer Science)  
“Novel Paradigms in Physics-Based Animation: Pointwise Divergence-Free Fluid Advection and Mixed-Dimensional Elastic Object Simulation”

**Gorzny, Jan** (Computer Science)  
“Related Orderings of AT-Free Graphs”

**Hartmann, Jeremy** (Computer Science)  
“Merging The Real and The Virtual: An Exploration of Interaction Methods to Blend Realities”

**Heidarikhazaei, Alireza** (Computer Science)  
“Structured Prediction on Dirty Datasets”

**Henderson, Jay Ellis** (Computer Science)  
“Understanding Mode and Modality Transfer in Unistroke Gesture Input”

**Marin, Dmitrii** (Computer Science)  
“Higher-Order Losses and Optimization for Low-Level and Deep Segmentation”

**Olaechea Velazco, Rafael Ernesto** (Computer Science)  
“Quantitative Analyses of Software Product Lines”

**Ramachandran, Akshay** (Computer Science)  
“Geodesic Convex Analysis of Group Scaling for the Paulsen Problem and the Tensor Normal Model”

**Stöckel, Andreas** (Computer Science)  
“Harnessing Neural Dynamics as a Computational Resource”

**Verschoor, Sebastian Reynaldo** (Computer Science - Quantum Information)  
“Quantum Information in Security Protocols”

**Yan, Xinan** (Computer Science)  
“Reducing the Latency of Dependent Operations in Large-Scale Geo-Distributed Systems”

**Zohora, Fatema Tuz** (Computer Science)  
“Deep Learning for Peptide Feature Detection from Liquid Chromatography - Mass Spectrometry Data”

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## MASTER OF MATHEMATICS

**Adhikary, Tamal** (Computer Science)

**Akhavan Mahdavi, Rasoul** (Computer Science)

**Babar, Oneeb** (Computer Science)

**Barr, Samuel Frederic** (Computer Science)

**Beach, Andrew James** (Computer Science)

**Bindra, Harsh** (Computer Science)

**Chaudhry, Zaid Hassan** (Computer Science)

**Chen, Lizhe** (Computer Science - Co-operative Program)

**Chen, Xuhao** (Computer Science)

**Chen, Zihan** (Computer Science)

**Coccimiglio, Gaetano Carmine** (Computer Science)

**Das, Utsav Tushar** (Computer Science)

**Debbané, Amy Gabriela** (Computer Science)

**Dukovac, Stefanie** (Computer Science)

**Feng, Xiyang** (Computer Science)

**Gellert, Chantelle** (Computer Science)

**Gholamizoj, Soroosh** (Computer Science - Co-operative Program)

**Gudmundsson, Egill Ian** (Computer Science)

**Gurtler, Tristan Merle** (Computer Science)

**Hu, Chengcheng** (Computer Science)

**Huang, Siliang** (Computer Science - Co-operative Program)

**Humphries, Thomas Edward** (Computer Science)

**Ji, Zongliang** (Computer Science - Co-operative Program)

**Kahn, Maximilian** (Computer Science)

**Kandage, Aruth** (Computer Science)

**Lam, Aaron Chi Hon** (Computer Science)

**Larter, Scott Campbell** (Computer Science)

**Li, Xinda** (Computer Science)

**Li, Xinkai** (Computer Science)

**Lyu, Saiyue** (Computer Science - Co-operative Program)

**Murali, Aniruddhan** (Computer Science)

**Nelson, Elliot Luke** (Computer Science)

**Ng, Yin Ki** (Computer Science)

**Paryab, Neda** (Computer Science)

**Ramanathan, Aishwarya** (Computer Science)

**Ramezani, Mahdi** (Computer Science)

**Santos, Rebecca Linda Casinha** (Computer Science)

**Sarang, Amardeep Singh** (Computer Science)

**Sethi, Udhav** (Computer Science)

**Singh, Anmol** (Computer Science)

**Sivasubramaniam, Harry** (Computer Science)

**Stroud, Graeme Robinson** (Computer Science)

**Suarez, Ginnello Lawrence** (Computer Science)

**Tannahill, Connor Devin Ralph** (Computer Science)

**Thode, Michael Henderson** (Computer Science)

**Tinits, Andrew Michael** (Computer Science)

**Wang, Xue Jun** (Computer Science)

**Ward, Ethan** (Computer Science)

**Wen, Xiaoyu** (Computer Science - Co-operative Program)

**Wu, Ziyuan** (Computer Science - Co-operative Program)

**Yang, Linguan** (Computer Science)

**Zhang, Futian** (Computer Science - Co-operative Program)

**Zhang, Runqi** (Computer Science)

# Undergraduate Degrees

## BACHELOR OF COMPUTER SCIENCE

### HONOURS PROGRAM

Alazzam, Samir

Ambroise, Olivier

Aniva, Leni (Data Science – Pure Mathematics Minor, Combinatorics and Optimization Minor) †

Babor, Jason Alexander

Bak, Sang Jun

Benipal, Vikram-Jit Singh (Business Option)

Bodak, Alexandra Edna

Brahmbhatt, Harshal \*

Cai, Weixi

Chandrakumar, Induja (Computer Science & Joint Honours Biology)

Chen, Dejia

Chen, Jiawei \*

Chen, Jing Yu \*

Chen, Kefan (Business Option) \*

Cho, Youngmok

Choong, Lydia Jane Mercer (Human-Computer Interaction Specialization) \*

Chu, Jason Jak-Heng (Business Option)

Deng, Jiayu †

Dhir, Prakriti \*

Dodds, Mark Thomas \*

Edward, Erin Shelley (Computational Fine Arts Option – French Minor)

Fan, Xinyuan (Business Specialization)

Fok, Margaret (Business Option)

Foo, Zhiyan

Froelich-Dagenais, Thomas Michael \*

Gemmell, Sara Jane Faith

Gill, Jasmeet Singh (Software Engineering Specialization & Business Specialization)

Gu, Zhenni

Gupta, Saumya †

Harvey, Lucas †

Hooda, Nishant

Hu, Yiyang \*

Huang, Guan Qiao (Business Option – Statistics Minor) †

Ip, Milton Xu Lin

Jiang, Bowen (Data Science)

Jing, Ziyu (Business Specialization) \*

Kassab, Ayman (Software Engineering Specialization)

Kataria, Het

Keyhani, Mohsen

Kim, Hyun Soo (Statistics Minor)

Kim, Tae Yeop (Business Specialization)

Koh, Seoyeon (Human-Computer Interaction Specialization)

Koller, Nadav †

Kong, De Jin (Psychology Minor) †

Lewis, Craig Eric (Business Option) \*

Li, Angus Yongfeng \*

Li, Joshua Enyi †

LI, Zenong (Combinatorics and Optimization Minor, Computational Mathematics Minor) \*

Lin, Xiaoyang \*

Liu, Simon †

Liu, Xianglin

Lund, Calder Jonathan (Business Option) \*

Luo, Jingning (Combinatorics and Optimization Minor) †

Lyu, Runhe (Digital Hardware Specialization & Artificial Intelligence Specialization)

Mak, Jethro \*

Maxin, Gregory (Entrepreneurship Minor)

McInroy, Reid Philip

Min, Ryan (Business Specialization)

Nesher, Jonathan

Nguyen, Brandon Khoa

Paliwal, Hardik

Pang, Lawrence Yuan (Statistics Minor) †

Park, Dong Jun (Business Option) \*

Patel, Ajay (Psychology Minor)

Patel, Arjav Pankaj

Patel, Harish

Patrick, Calum Aaron

Phạm, Nguyễn Cao †

Phan, Hoang Minh (Business Specialization)

Phillips, John Edward †

Pinheiro, Jamie Anthony †

Poehman, Shawna Danielle (Human-Computer Interaction Specialization – East Asian Studies Minor, English Language and Literature Minor) \*

Proshakov, Kirill

Qin, Hua Xuan (Psychology Minor) \*

Ramzy, Ian Joseph Boulianne \*

Ravi, Jetashree (Human-Computer Interaction Specialization – Economics Minor)

Rutledge, Jeremy James Fraser (Music Minor)

Shanjer, Minhaj Ashraf

Shi, Haoqi \*

Shi, RuoTao (Business Specialization) †

Shi, Wei

Song, Weiyuan \*

Su, Yang (Data Science) †

Vashishtha, Noel

Waled, Kouthar Nabeela \*

Wang, Andy \*

Wang, Haibo (Psychology Minor) \*

Wang, Johnny Chengtse

Wei, Qingyuan †

Williams, Troy Duncan (Business Specialization)

Xi, Maohua \*

Xie, Junxi (Human-Computer Interaction Specialization) \*

Xu, Yiran (Business Option) \*

Xue, Yuchen †

Yan, Yuxin (Psychology Minor) \*

Yang, Zi Jiang \*

Yates, Andrew David

Yin, Han Xiao

Yu, Zhenglin †

Zhang, En Yang †

Zhang, Shimin \*

Zhang, Wenjin †

Zhang, Yixue

Zheng, Michelle Qiaofeng †

Zhu, Kejian

Zhu, Rachel Zhiying †

\* – Distinction

† – Dean's Honours

## HONOURS CO-OPERATIVE PROGRAM

**Abrahams, Alexander James**

**Adiyodi, Rohan Nirmal** \*

**Agarwal, Avyay** (Economics Minor)

**Al-Sudani, Zainab** \*

**Amari, Nuri Fillipo** \*

**Anand, Mayank** \*

**Asadi, Pouyan** †

**Averion, Hera Mari Marajas** (History Minor)

**Bai, Yifan** (Computational Mathematics Minor, Statistics Minor) †

**Beaver, Maxwell Charles** (Economics Minor) †

**Bemfica, Felipe Marius Petersen** †

**Benipal, Baljinder Singh**

**Bhasin, Divyam** \*

**Bilimoria, Kapil** (Software Engineering Specialization – Philosophy Minor)

**Bosiljevac, Megan Claire** †

**Bulmer, Hannah Kyrkos** \*

**Cai, William** (Human-Computer Interaction Specialization) †

**Caille, James Michael**

**Cao, Shuheng** †

**Chai, Rui Xiang** (Business Option – Statistics Minor) \*

**Chan, Zih-Sian** (Digital Hardware Option)

**Chawla, Simardeep Singh**

**Chen, Yufei** \*

**Chen, Yuxiang** \*

**Chen, Ziyi** †

**Chi, David Chang** (Business Option) \*

**Choo, Aaron Jhun Win** (Business Option) \*

**Chow, Keith** \*

**Cranston, Alastair John Andrew** (Digital Hardware Option)

**Cui, Liza Ruidong**

**Cui, Qixuan** (Statistics Minor) †

**Dahiya, Khushi** (Business Option – International Studies Minor)

**Dai, Mingyi** †

**Das-Giwojno, Surien Joseph** (Business Option – Combinatorics and Optimization Minor)

**Davidson, Solomon Levi** \*

**Deora, Smriti** (Classical Studies Minor)

**Ding, Yu Hao** \*

**Dong, Haoran** (Data Science – Pure Mathematics Minor) †

**Dordari, Roxanna**

**Dorfman, James** †

**Doshi, Raina** (Combinatorics and Optimization Minor)

**Du, Tingda** (Combinatorics and Optimization Minor) \*

**Duan, Xin Yun**

**Edwards, Stephen Sherman** (Music Minor) †

**Egorov, Alexander**

**Erenberg, Max** †

**Evans, Ross Peter** †

**Fan, Haoda** (History Minor)

**Fatmah, Yamna**

**Feng, Gary Jia Rui** †

**Feng, Wen Liang** (Business Specialization – Combinatorics and Optimization Minor) \*

**Feng, Yulin** (Statistics Minor) \*

**Fong, Sara Hoy Yee** (Cognitive Science Minor) \*

**Fong, Sofia** †

**Gamble, Andrew James Edward** (Digital Hardware Specialization) \*

**Gao, Congzhe** †

**Gao, Kristy Xue** \*

**Gao, Zhengyuan** \*

**George, Kevin**

**Ginovker, Stephanie** (Computer Science & Joint Honours German)

**Gradinaru, Daniel** \*

**Green, Joseph Patrick** (Business Option)

**Grewal, Jyoti Prakash Kaur** (French Minor)

**Guo, Barbara**

**Guo, Haoyuan** (Artificial Intelligence Option)

**Guo, Zhongyang**

**Gupta, Rohil Vishal** \*

**Gupta, Suraj Ram** †

**Gupta, Umang** \*

**Hart, Katherine Elizabeth** †

**Hergert, Ryan Daniel** (Philosophy Minor)

**Hildebrand, Walker Birney** \*

**Hu, Menglei** (Statistics Minor) †

**Huang, Hao Wei** (Business Option – Combinatorics and Optimization Minor) \*

**Huang, Steven Diwen**

**Huo, Siqing** (Data Science) †

**Hwang, Stephen Jiwoo**

**Ji, Kangcheng** \*

**Ji, Yu Xuan** \*

**Jia, Donglin** (Psychology Minor) \*

**Jia, Kelly** \*

**Jiang, Haocen** †

**Jiang, Kelvin** (Data Science) †

**Jiang, Ryan Qiyu** †

**Jiang, Yue Yang** \*

**Jiang, Zijie** (Business Option – Statistics Minor) †

**Jin, Zhi Qi** (Business Specialization & Human-Computer Interaction Specialization) \*

**Johri, Salil** \*

**Kanjiyani, Rahib Firoz**

**Khalil, Suha Rokhan** (Business Option – Combinatorics and Optimization Minor)

**Kim, Yong Hwan** †

**Knappers, Christopher Daniel** †

**Kobayashi, Victor** \*

**Krogh, Christopher** (Statistics Minor)

**Kwan, Ryan Nicholas Masato**

**Lal, Erika** \*

**Lau, Brittany Pearl** (Human-Computer Interaction Specialization & Business Specialization – Psychology Minor) \*

**Lavallée, Ian Andrew**

**Le, Gordon** (Business Option) \*

**Lê, Ngoc An**

**Leung, Anders Sterling** \*

**Li, Carolina Aoke** (Human-Computer Interaction Specialization – Fine Arts Studio Minor) \*

**Li, Haozheng**

**Li, Kevin** (Business Option)

**Li, Sherry Hanxiao** (Bioinformatics Specialization) †

**Li, Stephen**

**Li, Yicheng** †

**Li, Yifang** (Data Science – Statistics Minor) †

**Li, Zhanghao** †

**Li, Ziqi** (Human-Computer Interaction Specialization – East Asian Studies Minor)

**Liang, Xi Xin** (Statistics Minor) \*

**Liew, Sean** (Human-Computer Interaction Specialization & Software Engineering Specialization – Cognitive Science Minor)

**Lin, Donghao** \*

**Lin, Eric** (Statistics Minor) †

\* – Distinction

† – Dean's Honours

**Lin, Yuehan** (Business Option) \*  
**Liu, Di**  
**Liu, Edmond Man Yuen** (Business Option) †  
**Liu, Oujing** (Statistics Minor) †  
**Lu, James Yuanhao** †  
**Lu, Zhi Heng** †  
**Lucki, Jonathan Walter** (Business Option – Economic Theory Minor) \*  
**Madan, Anish** (Business Specialization)  
**Maheshwari, Anant** (Combinatorics and Optimization Minor, Biology Minor) \*  
**Mak, Daniel Chun Hin** \*  
**Malhotra, Rajat** (Human-Computer Interaction Specialization)  
**Medina, Anton Joseph Sordan** †  
**Mithani, Sakina Hussain** \*  
**Mou, Dixin** (Data Science) †  
**Muralitharan, Argavin** (Business Specialization)  
**Nagar, Karan Ganpatlal** \*  
**Naveed, Omair** (Statistics Minor)  
**Nguyen, Duc Thanh** †  
**Nguyen, Pascal**  
**Nguyen, Thien An** (Business Option)  
**Nguyen, Tri Nhan** \*  
**Niu, Casey Linda** (Combinatorics and Optimization Minor, French Minor) \*  
**Painting, Isaac David**  
**Pan, Xingcheng Jack** †  
**Pandey, Apoorv** (Psychology Minor) \*  
**Pangarkar, Anish**  
**Partono, Ruben Solomon** (Combinatorics and Optimization Minor, Computational Mathematics Minor) †  
**Patel, Atmn Devendra**  
**Patel, Vraj Pratik**  
**Pecka, Russell Francis Hodgson**  
**Peng, Da** (Psychology Minor) †  
**Peng, Daniel** (Business Option) †  
**Peng, Jing Fei** (Business Option) †  
**Pereira, Lance Leslie** \*  
**Petkovsek, David Edward** (Cognitive Science Minor)  
**Phillips, Matthew Jeffrey** \*  
**Potapov, Kathrine** (Human-Computer Interaction Specialization – Cognitive Science Minor)  
**Prajapati, Disa** (Software Engineering Specialization)  
**Prasad, Rakshintha**  
**Pu, Jun Ting** \*  
**Purohit, Vedant Dipenkumar** (Combinatorics and Optimization Minor) \*  
**Puzon, Cheryl**  
**Qiao, Jiarui** \*  
**Qin, Chu** \*  
**Qin, Xufei** †  
**Quinlan, Benjamin Christopher Joseph** (Economics Minor)  
**Qureshi, Moeyyad**  
**Rajani, Dhruv Jiten** \*  
**Rampersad, Joshua Charles Martin** (Music Minor) \*  
**Reinke, Eric Christopher**  
**Ren, Yi** (Artificial Intelligence Specialization) †  
**Ryu, Heesup** \*  
**Saad, Bilal** \*  
**Samuel, Armaan Joseph** (Business Option) \*  
**Santos, Aspen Rose** (Computational Fine Arts Option) \*  
**Sayeed, Kashif Jahan** †  
**Shan, Yingchao**  
**Shende, Nikhil Nitin** \*  
**Sheth, Harsh** (Human-Computer Interaction Specialization)  
**Shi, Tianyi Etienne** \*  
**Shynkevych, Dmytro** †  
**Siddiqui, Muhammad Owais** \*  
**Singhal, Kritin** \*  
**Sirwani, Rahul Devanand**  
**Somani, Faizal Firoz** (Communication Studies Minor) \*  
**Sothinathan, Mathura** (Business Option)  
**Soundararajan, Srikanth** \*  
**Stoppi, Guy Michael** (Statistics Minor) †  
**Sun, Yuqiao** (Business Option)  
**Tan, Yin Wai Annaliese** (Business Option) \*  
**Tan, Yiqing** †  
**Tang, Clark** (Software Engineering Option) †  
**Tang, Rui Jie** (Computer Science & Joint Honours Physics) \*  
**Tang, Ryan Zhong** \*  
**Tao, Alexis Samantha** \*  
**Tao, Yuxi** \*  
**Thaker, Manas** \*  
**Thompson, Jack Riley** (Business Option)  
**Tian, Haoyu** (Business Specialization) \*  
**Tinianov, Dylan Bradley**  
**Tomic, Dunja** (Human-Computer Interaction Option)  
**Tong, Tianyi** (Statistics Minor)  
**Tran, Daniel Kam**  
**Trinh, Michael**  
**Tsang, Clement Jun Hall** \*  
**Tu, Jingxiu**  
**Tu, Kallen** \*  
**Tu, Richard** \*  
**Vidyananthan, Saranya** (Business Option)  
**Vuong, Brian** \*  
**Wang, Chun Chiao** \*  
**Wang, Eric J** \*  
**Wang, Haoran**  
**Wang, Luyuan** (Data Science) \*  
**Wang, Yawen** (Business Specialization) \*  
**Wang, Yi Jie** (Cognitive Science Minor) †  
**Wang, Yue Qian** \*  
**Wei, Ningyuan** \*  
**Welk, Nathaniel Ronald**  
**Wen, Christina** (Software Engineering Specialization)  
**Westland-Tegart, Anna Marie** (Human-Computer Interaction Specialization – Cognitive Science Minor) \*  
**Wilkins, Benjamin Jaffray** †  
**Wong, Stanley** (Biology Minor) \*  
**Xiao, Wan Ying** †  
**Xie, Yizhe** \*  
**Xu, Ao** \*  
**Xu, Daniel** (Psychology Minor)  
**Xu, Donghui** (Data Science) †  
**Yan, Jiachen** (Data Science) †  
**Yang, Andy Keyi** †  
**Yang, Richard** †  
**Yang, Samuel** (Legal Studies Minor) †  
**Yang, Sunny** †  
**Yang, Xuan** (Business Option – French Minor)  
**Ye, Shuxin** (Data Science) \*  
**Yew, Zishen**  
**Yu, Cheuk-To Jeremy** †  
**Yu, Qing Kang** (Combinatorics and Optimization Minor) \*  
**Zaveri, Kushan Ashish** (Combinatorics and Optimization Minor) †

\* – Distinction  
† – Dean's Honours



**Zhan, Ace Ziyi** \*

**Zhan, Rui Qi** (East Asian Studies Minor) †

**Zhang, Dainan** †

**Zhang, Daniel Yuanlun** (Combinatorics and Optimization Minor) †

**Zhang, Flora** †

**Zhang, Hao Xuan** (Business Specialization) \*

**Zhang, Jack Zhi Qing** (Business Option) †

**Zhang, Jeffrey** †

**Zhang, Jiachen** \*

**Zhang, Jiawen Lily** (Business Specialization) \*

**Zhang, Meixun** (Business Option – Statistics Minor) \*

**Zhang, Miaoqi** †

**Zhang, Songqing** (Music Minor) \*

**Zhang, Weichao** (Business Option – Combinatorics and Optimization Minor) †

**Zhang, Yichi** †

**Zhang, Yizhi** (Data Science) †

**Zhang, Yuke** (Business Specialization – Statistics Minor) \*

**Zhang, Zhijia** \*

**Zhou, Hongjian** \*

**Zhou, Keyi** (English Language and Literature Minor) \*

**Zhou, Keying** (Business Specialization) \*

**Zhou, Rock Yiming** \*

**Zhou, Sean Tianxiang** \*

**Zhou, Zelin**

**Zhou, Zizhuang** \*

**Zhu, Jerry** (Business Option)

**Zhu, Jerry Yitian** (Data Science) \*

**Zhuang, Yining** †

**Zhuo, Ran** (Combinatorics and Optimization Minor) †

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## BACHELOR OF MATHEMATICS

### HONOURS PROGRAM

**Ahmed, Zahra** (Computer Science & Joint Honours Combinatorics and Optimization – Fine Arts Studio Minor) \*

**Cheng, Jiahui** (Computer Science & Honours Combinatorics and Optimization & Honours Pure Mathematics) \*

**Dou, Yiming** (Computer Science & Honours Combinatorics and Optimization) \*

**Farmahin Farahani, Ashkan** (Computer Science – Pure Mathematics Minor)

**He, Junjie** (Computer Science – Physics Minor) †

**Huang, Yuqing** (Computer Science/Artificial Intelligence Option & Honours Combinatorics and Optimization) †

**Huang, Yushu** (Computer Science & Honours Combinatorics and Optimization & Honours Pure Mathematics) †

**Kang, Qingyun** (Computer Science & Honours Combinatorics and Optimization – Pure Mathematics Minor) †

**Li, Jian** (Computer Science & Honours Statistics) \*

**Li, Yu** (Computer Science & Honours Statistics & Honours Computational Mathematics)

**Lotfi, David** (Computer Science – Pure Mathematics Minor)

**Margrave, Sylvia** (Computer Science) \*

**Ohapkin, Yuval** (Joint Computer Science & Joint Honours Combinatorics and Optimization) \*

**Park, Sunghoon** (Joint Computer Science & Joint Honours Combinatorics and Optimization)

**Shi, Jia** (Computer Science & Honours Pure Mathematics) †

**Tan, Xiwen** (Computer Science)

**Tang, William Jide** (Computer Science & Honours Statistics)

**Vadivelu, Nicholas Baskar** (Computer Science & Honours Statistics) †

**Wilson, Spencer MacLaren** (Joint Computer Science & Joint Honours Pure Mathematics) †

**Wu, Yilun** (Computer Science)

**Xu, Jingye** (Computer Science) \*

**Yarwood, Kyle Andrew Russell** (Computer Science & Honours Combinatorics and Optimization & Honours Computational Mathematics) \*

**Yu, Linhan** (Joint Computer Science & Joint Honours Combinatorics and Optimization) \*

**Yuen, Jason** (Computer Science & Honours Combinatorics and Optimization) †

**Zhang, Benjamin** (Computer Science – Combinatorics and Optimization Minor)

**Zheng, Yuli** (Computer Science & Honours Statistics)

**Zhou, Chang Feng** (Computer Science & Honours Combinatorics and Optimization – Pure Mathematics Minor) †

### HONOURS CO-OPERATIVE PROGRAM

**Ahmed, Umar** (Computer Science – Pure Mathematics Minor) †

**Au, Patrick** (Computer Science & Honours Combinatorics and Optimization & Honours Pure Mathematics) \*

**Chen, Ziwei** (Computer Science – Pure Mathematics Minor) †

**Feng, Eva Hu** (Computer Science & Honours Combinatorics and Optimization) \*

**Fu, Rui Qi** (Computer Science & Honours Mathematics–Chartered Professional Accountancy) \*

**He, Zhengjiang** (Computer Science – Pure Mathematics Minor) †

**Jaszczur, Thomas Anthony** (Computer Science & Joint Honours Pure Mathematics) \*

**Kam, Ho Yin** (Computer Science & Honours Combinatorics and Optimization – Pure Mathematics Minor) \*

**Kamboj, Karanbir Singh** (Computer Science)

**Kumanan, Vaishali** (Computer Science & Honours Combinatorics and Optimization – Pure Mathematics Minor) \*

**Li, Yufeng** (Computer Science & Honours Pure Mathematics) †

**Liu, Jiaxiang** (Computer Science & Honours Statistics & Honours Combinatorics and Optimization) †

**Luo, Dongshu** (Computer Science & Honours Statistics) †

**Ma, Darrel** (Computer Science/ Business Option)

**Meng, Zizeng** (Computer Science & Honours Statistics) †

**Munjal, Roshan** (Computer Science/ Business Option – Statistics Minor) †

**Oliynyk, Danylo** (Computer Science – Combinatorics and Optimization Minor)

**Peng, Lechuan** (Computer Science & Honours Combinatorics and Optimization – Applied Mathematics Minor, Music Minor) †

**Sundoro, Louis Jason** (Computer Science & Honours Combinatorics and Optimization) †

**Sybersma, Mary Frances** (Computer Science & Joint Honours Combinatorics and Optimization) \*

\* – Distinction

† – Dean's Honours

**Wang, Yao** (Computer Science & Honours Combinatorics and Optimization – Statistics Minor) †

**Wen, William** (Computer Science & Joint Honours Pure Mathematics) †

**Xiao, Yitong** (Computer Science & Honours Combinatorics and Optimization) †

**Xiong, Rui Ming** (Computer Science & Joint Honours Combinatorics and Optimization – Pure Mathematics Minor) †

**Xu, Yuan Hao Simon** (Computer Science) \*

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## CERTIFICATE IN GLOBAL EXPERIENCE

Edward, Erin Shelley  
Poehman, Shawna Danielle  
Zhang, Jiawen Lily  
Zhang, Meixin

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## DIPLOMA IN FRENCH LANGUAGE I

He, Junjie

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## DIPLOMA IN FRENCH LANGUAGE II

Al-Sudani, Zainab  
Bemfica, Felipe Marius Petersen

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## DIPLOMA IN GERMAN LANGUAGE

Wang, Luyuan

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## DIPLOMA IN JAPANESE LANGUAGE I

Bai, Yifan  
Du, Tingda  
Lin, Donghao  
Welk, Nathaniel Ronald  
Zhou, Keying  
Zhou, Sean Tianxiang

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## DIPLOMA IN JAPANESE LANGUAGE II

Phạm, Nguyễn Cao  
Poehman, Shawna Danielle  
Zhan, Rui Qi

---

## DIPLOMA IN KOREAN LANGUAGE I

Wen, Christina

---

## DIPLOMA IN SPANISH LANGUAGE II

Yates, Andrew David

---

## CERTIFICATE IN EXPERIENTIAL EDUCATION

Huang, Guan Qiao

\* – Distinction  
† – Dean's Honours



# AFTERNOON CEREMONY

Degrees and diplomas from:  
**UNIVERSITY OF WATERLOO**  
**FACULTY OF MATHEMATICS**

# Graduate Degrees

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## DOCTOR OF PHILOSOPHY

**Cheng, Lu** (Statistics)  
“Computational Methods for  
Compositional Epistasis Detection”

**Hintz, Erik** (Statistics)  
“Randomized Quasi-Monte Carlo  
Methods with Applications to  
Quantitative Risk Management”

**Hu, Bowen** (Statistics)  
“State-Dependent Modeling of  
Default Rates”

**Mao, Fangya** (Statistics – Biostatistics)  
“Design and Analysis of Life History  
Studies Involving Incomplete Data”

**Puspita, Dila** (Actuarial Science)  
“Risk Modelling in Shariah Compliant  
Investment and Insurance Products”

**Shum, Marco Yan Shing** (Statistics)  
“On Imprecision in Statistical Theory”

**Valiollahimehrizi, Reza** (Statistics)  
“Change Point Analysis in Piecewise  
Polynomial Signals Using Trend  
Filtering”

**Xu, Zehao** (Statistics)  
“Interactive and Static Statistical  
Graphics: Bridge to Integration”

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## MASTER OF DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

**Allan, Robert Michael** (Co-operative  
Program)

**Bhattacharjee, Aatrayee**  
(Co-operative Program)

**Chen, ChinLin** (Co-operative  
Program)

**Chen, Yingzhe** (Co-operative  
Program)

**Dawkins, William Gary**  
(Co-operative Program)

**de la Rua, Emily Victoria**  
(Co-operative Program)

**Edwards, John Landon**  
(Co-operative Program)

**Falcone, Estevan Daniel**  
(Co-operative Program)

**Fung, Erika** (Co-operative Program)

**Godwin, Gracia Tabitha**  
(Co-operative Program)

**Hu, Baitao** (Co-operative Program)

**Jiao, Bingyi** (Co-operative Program)

**Khalid, Rayyan** (Co-operative  
Program)

**Kumar, Manish** (Co-operative  
Program)

**Lalwani, Yash** (Co-operative  
Program)

**Li, Yishan** (Co-operative Program)

**Lyu, Jinning** (Co-operative Program)

**Melgarejo Lermas, Irene**  
(Co-operative Program)

**Najafian, Arman** (Co-operative  
Program)

**Pan, Ting** (Co-operative Program)

**Wang, Anbo** (Co-operative Program)

**Wang, Yi Feng** (Co-operative  
Program)

**Zhang, Yuqing** (Co-operative  
Program)

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## MASTER OF MATHEMATICS

**Chavez, Luis Alejandro** (Statistics)

**Cui, Rongfeng** (Statistics)

**Degala, Aditya** (Statistics)

**Guo, Tianqi** (Actuarial Science)

**Guo, Ting** (Actuarial Science)

**Huang, XuanZhou** (Actuarial  
Science)

**Hussain, Swaleh** (Statistics –  
Co-operative Program)

**Lee, Branden** (Statistics)

**Leung, Alice Hing-Yee** (Statistics)

**Liu, Yuanzhi** (Actuarial Science)

**Mo, Jiaxuan** (Statistics)

**Rizvi, Syeda Saira** (Data Science)

**Sharman, Bharat Sethuraman**  
(Statistics)

**Signorile, Marisa Antonia**  
(Biostatistics)

**Wong, Shing Yu** (Biostatistics –  
Co-operative Program)

**Xue, Yuanyuan** (Actuarial Science)

**Zhang, Yi** (Actuarial Science)

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## MASTER OF QUANTITATIVE FINANCE

Chen, Harris  
Chen, Qingyuan  
Chin, Jeffrey  
Czinner, Shon  
Lin, Yuxin  
Wang, Yuxin  
Wang, Zhi  
Yu, Wenhui

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## GRADUATE CERTIFICATE

**Dong, Gracia Yunruo** (University  
Teaching)

**Hintz, Erik** (University Teaching)

# Undergraduate Degrees

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## BACHELOR OF COMPUTER SCIENCE

### HONOURS PROGRAM

**Bhagat, Mohit** (Business Administration and Computer Science)

**Bhundar, Harsimrat Singh** (Business Administration and Computer Science) \*

**Chen, Hanson Gan Luk** (Business Administration and Computer Science)

**Dong, Wen Xuan** (Business Administration and Computer Science) \*

**Edgecombe, Spencer Geoffrey** (Business Administration and Computer Science)

**Li, YuZhen** (Business Administration and Computer Science)

**Talati, Akhil Bipinbhai** (Business Administration and Computer Science) \*

### HONOURS CO-OPERATIVE PROGRAM

**Biswas, Sourav** (Business Administration and Computer Science – Computational Mathematics Minor) †

**Cheng, Jiayue** (Business Administration and Computer Science) \*

**Dietrich, Stuart Francis Mike** (Business Administration and Computer Science) †

**Haider, Syed Jafer** (Business Administration and Computer Science)

**Han, Tingqian** (Business Administration and Computer Science) \*

**Hong, Bruce Jiawen** (Business Administration and Computer Science)

**Jiang, Sophie Shifei** (Business Administration and Computer Science) \*

**Kooner, Satvir Singh** (Business Administration and Computer Science) †

**Lan, Danny Danfeng** (Business Administration and Computer Science – Software Engineering Specialization) †

**Liu, Jia Hua** (Business Administration and Computer Science) \*

**Mohta, Priyang Sushil** (Business Administration and Computer Science) \*

**Ngo, Julie** (Business Administration and Computer Science) \*

**Shah, Yash** (Business Administration and Computer Science) †

**Su, Hao Cong** (Business Administration and Computer Science) †

**Sun, Matthew Jia-Yao** (Business Administration and Computer Science)

**Verma, Dillion** (Business Administration and Computer Science)

**Wang, Hao Yi** (Business Administration and Computer Science) \*

**Yu, Yi Xuan** (Business Administration and Computer Science) \*

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## BACHELOR OF COMPUTING AND FINANCIAL MANAGEMENT

### HONOURS CO-OPERATIVE PROGRAM

**An, Hongyu**

**Chaudhuri, Pronoy** (Combinatorics and Optimization Minor) \*

**Chen, Cindy XinYi**

**Chen, William Haoyang** \*

**Chen, Xiaoyang**

**Cui, Kyle**

**Deng, Yu Fan** (Statistics Minor) \*

**Hou, Guan Yu**

**Hu, Ruijie**

**Hua, Sha** \*

**Kakkirala, Sujay**

**Kejriwal, Devansh**

**Kwok, Tony Ka Ming**

**Lee, Haeim**

**Li, Giufei** \*

**Li, Sophia**

**Liu, Zhuocheng** (Statistics Minor) \*

**Ma, Anji** \*

**Nitu, Vlad Paul** \*

**Rho, Jungsun** \*

**Shih, Shao Rong** \*

**Song, Michael** \*

**Tao, Yuexin**

**Wang, Ruoxuan** (Statistics Minor) †

**Xing, Ke Xin**

**Xu, Kenneth**

**Yang, Daniell**

**Ye, Ying** †

**Zhang, Brendan Lintong** \*

**Zhang, Xueting**

**Zhuang, Mingji** \*

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## BACHELOR OF MATHEMATICS

### GENERAL PROGRAM – THREE YEAR

Aniobi, Henry Chigozie  
Boyer, Travis Cook  
Cain, Sebastian Robert  
Chan, Jasmine

Chen, Jawa  
Du, Joshua JiaEn  
Jeong, Dong Yeun  
Khan, Sufyan  
Leung, Ting Kwok

Li, Jiaqing  
Li, Mengqi  
Lian, Tian Yi  
Liang, Haoran  
Madison, Nicholas Charles  
Mankoo, Jai Singh  
Padukka, Anudi Udara  
Rathod, Ritvi Himanshu  
Rizvi, Syed Ali Raza  
Sa, Min Jie  
Wu, Siyuan  
Yi, Xiancheng

### GENERAL CO-OPERATIVE PROGRAM – THREE YEAR

Yang, Guangyuan

### HONOURS PROGRAM

**Ahmed, Fayaz** (Statistics – Combinatorics and Optimization Minor) \*

**Amorim, Grant Mackenzie Alexander** (Business Administration and Mathematics & Honours Statistics) \*

**An, Feifan** (Statistics)

**Arcilla, Jared Pabelico** (Statistics)

\* – Distinction

† – Dean's Honours

- Bao, Yanran** (Actuarial Science & Honours Statistics)
- Becic, Mihailo** (Business Administration and Mathematics & Honours Statistics) \*
- Chatoor, Amanda Isabelle** (Actuarial Science & Honours Statistics) \*
- Chen, Dingli** (Actuarial Science & Honours Statistics)
- Chen, Jingying** (Data Science) \*
- Chen, Sitong** (Actuarial Science & Honours Statistics – Computing Minor)
- Chen, Xiaoyu** (Actuarial Science & Honours Statistics) \*
- Chen, Xuanyi** (Mathematical Studies – Business Specialization – Computing Minor)
- Chen, Yi Fan** (Actuarial Science & Honours Statistics) \*
- Chen, Yicong** (Actuarial Science & Honours Statistics) \*
- Cheng, Leyan** (Data Science) \*
- Cheng, Ruikun** (Statistics)
- Chowdhury, Alvee Jawad** (Statistics)
- Cong, Fuhan** (Actuarial Science & Honours Statistics)
- Cui, Yuanjun** (Actuarial Science & Honours Statistics) \*
- Daley, Melique Merrick** (Statistics & Honours Combinatorics and Optimization)
- Ding, Dilwen Tze How** (Actuarial Science & Honours Statistics)
- Dong, Mengyi** (Statistics) \*
- Fan, Joshua Tinho** (Statistics & Honours Computational Mathematics) \*
- Fan, Yu qing** (Statistics)
- Fang, Xiaoran** (Actuarial Science & Honours Statistics) \*
- Fogh, Curtis Peter** (Statistics) \*
- Gao, Ruofan** (Actuarial Science & Honours Statistics) \*
- Ge, Hengjun** (Actuarial Science/ Predictive Analytics Option & Honours Statistics) \*
- Gingerich, Joel Christian** (Mathematical Studies – Computing Minor, History Minor)
- Guo, Jialiang** (Actuarial Science & Honours Statistics)
- Guo, Yinjiang** (Actuarial Science/ Finance Option & Honours Statistics) \*
- Guray, Egemen Ihsan** (Statistics – Computing Minor)
- Halden, Cody Brayden** (Biostatistics & Honours Applied Mathematics)
- Halim, Hansa** (Statistics – Computing Minor, Computational Mathematics Minor)
- Han, Yueyang** (Statistics) †
- Hayman, Andrea Susan Elizabeth** (Business Administration and Mathematics) \*
- He, Zhengxiang** (Mathematical Studies)
- Hlady, Marcus Ryan** (Statistics – Economics Minor) \*
- Horton, Jessica Lynne** (Business Administration and Mathematics & Honours Actuarial Science – Statistics Minor) \*
- Hu, Xinwei** (Statistics)
- Huang, Zijian** (Statistics) \*
- Jaggernauth, Gregory Bryan Mark** (Actuarial Science & Honours Statistics)
- Ji, Christopher Chenzuo** (Statistics – Pure Mathematics Minor, Psychology Minor)
- Johnstone, Andrew Bernardino** (Business Administration and Mathematics – Combinatorics and Optimization Minor, Statistics Minor)
- Joshi, Vansh** (Statistics – Computing Minor)
- Kwok, Tsoi Tung** (Actuarial Science & Honours Statistics)
- Lee, Brittanica Phoebe** (Actuarial Science & Honours Statistics)
- Lee, Joss** (Statistics)
- Lee, Jung Hyun** (Statistics)
- Lei, Runzhou** (Biostatistics)
- Li, Muhan** (Actuarial Science/ Predictive Analytics Option & Honours Statistics)
- Li, Ruijia** (Actuarial Science & Honours Statistics) \*
- Li, Shuo** (Statistics – Computing Minor)
- Li, Siqi** (Statistics & Honours Computational Mathematics)
- Li, Xueyuan** (Statistics – Computing Minor)
- Li, Zhuangqing** (Actuarial Science & Honours Statistics)
- Liang, Jiazhou** (Statistics & Honours Computational Mathematics) \*
- Lim, Megan Ashley Jang** (Business Administration and Mathematics & Honours Actuarial Science)
- Lin, Changzhi** (Business Administration and Mathematics & Honours Statistics)
- Lin, Fanghe** (Actuarial Science/ Predictive Analytics Option & Honours Statistics) †
- Lin, Qiaowei** (Statistics – Applied Mathematics Minor) \*
- Liu, Dan Dan** (Statistics & Joint Honours Actuarial Science) \*
- Liu, Hanfu** (Statistics & Honours Combinatorics and Optimization) \*
- Liu, Xingjun** (Actuarial Science & Honours Statistics) \*
- Liu, Yingdi** (Mathematical Studies – Business Specialization)
- Liu, Yunfan** (Actuarial Science & Honours Statistics) †
- Liu, Zhenan** (Statistics & Honours Computational Mathematics)
- Lo, Wilson Ka Man** (Statistics – Computing Minor)
- Lu, Qianlin** (Statistics & Honours Combinatorics and Optimization)
- Lu, Yisong** (Statistics & Joint Honours Applied Mathematics)
- Lu, Yuhao** (Actuarial Science & Honours Statistics)
- Lu, Zhenhua** (Actuarial Science)
- Luo, Yiting** (Statistics) \*
- Luo, Yuxuan** (Actuarial Science & Honours Statistics) \*
- Ma, Yiwen** (Actuarial Science & Honours Statistics) \*
- Mohammed, Arjun Isa** (Statistics) \*
- Musella Galindez, Santiago Andres** (Mathematical Studies – Computing Minor, Classical Studies Minor)
- Nathoo-Khedri, Farzaan** (Actuarial Science) \*
- Ni, Weiwei** (Actuarial Science – Statistics Minor)
- Niu, Tian** (Statistics – Computing Minor) \*
- Pasumarthy, Krishna Prem** (Statistics & Honours Computational Mathematics) \*
- Pu, Jinnian** (Statistics – Economics Minor)
- Qian, Qixin** (Statistics – Actuarial Science Minor)
- Qiao, Michael** (Statistics – Pure Mathematics Minor, Economics Minor)
- Quan, Junfeng** (Actuarial Science & Honours Statistics)
- Ravinthiran, Pritika** (Statistics – Classical Studies Minor)
- Ren, Xinyun** (Actuarial Science/ Finance Option & Honours Statistics)
- Romodanovskiy, Grigory** (Mathematical Studies – Computing Minor)

\* – Distinction

† – Dean's Honours

**Shen, Bingjie** (Data Science) †  
**Shen, Bowen** (Statistics – Actuarial Science Minor)  
**Shi, Keyan** (Data Science) \*  
**Shi, Muye** (Statistics – Applied Mathematics Minor)  
**Shi, Weihao** (Statistics)  
**Shi, Yinqi** (Actuarial Science & Honours Statistics)  
**Shum, Colin Andy** (Mathematical Studies – Computing Option)  
**Song, Haoze** (Statistics)  
**Tan, Si Yee** (Mathematical Studies – Computing Minor) \*  
**Tang, Zixi** (Statistics & Honours Actuarial Science)  
**Teng, Teng** (Statistics)  
**Tian, Siyao** (Actuarial Science & Honours Statistics)  
**Tian, Yuan** (Actuarial Science & Honours Statistics)  
**Tian, Zhengwei** (Business Administration and Mathematics & Honours Statistics)  
**Ting, Shao Chi** (Mathematical Studies – Business Specialization – Statistics Minor)  
**Twin, Alex** (Statistics – Computing Option)  
**Vaswani, Shreya** (Statistics – Economics Minor) \*  
**Wang, Banni** (Mathematical Studies – Statistics Minor)  
**Wang, Hao** (Mathematical Studies – Pure Mathematics Minor, Combinatorics and Optimization Minor)  
**Wang, Simin** (Actuarial Science & Joint Honours Statistics) \*  
**Wang, Tianyu** (Biostatistics) †  
**Wang, Xinyue** (Biostatistics)  
**Wang, Xiyue** (Actuarial Science & Honours Statistics)  
**Wang, Yahui** (Actuarial Science & Honours Statistics) †  
**Wang, Yujie** (Statistics – Actuarial Science Minor) \*  
**Wu, Chengying** (Statistics – Economics Minor) \*  
**Wu, Shiliang** (Actuarial Science & Honours Statistics) \*  
**Wu, Wenzhu** (Actuarial Science & Honours Statistics)  
**Wu, Xiaowen** (Statistics – Economics Minor) \*  
**Wu, Yue** (Actuarial Science & Honours Statistics) \*

**Xiao, Yixuan** (Actuarial Science & Honours Statistics) \*  
**Xie, Bing** (Statistics – Computing Minor)  
**Xie, Jinhua** (Mathematical Studies)  
**Yan, He** (Statistics)  
**Yan, Yucheng** (Data Science) \*  
**You, Wei Tao** (Actuarial Science & Honours Statistics) \*  
**Yu, Eric Zhi Wing** (Actuarial Science & Honours Statistics) \*  
**Yu, Shuyue** (Actuarial Science & Honours Statistics) \*  
**Yu, Xiaofan** (Actuarial Science & Honours Statistics)  
**Zeng, Yishan** (Mathematical Studies)  
**Zha, Ruoqi** (Statistics – Economics Minor) \*  
**Zhai, Yilong** (Statistics & Honours Actuarial Science) †  
**Zhang, Hengsu** (Statistics & Joint Honours Combinatorics and Optimization) \*  
**Zhang, Jiahe** (Actuarial Science & Honours Statistics)  
**Zhang, Mengxin** (Statistics & Honours Mathematics/Business Administration)  
**Zhang, Qi** (Statistics)  
**Zhang, Shiyue** (Actuarial Science & Honours Statistics) \*  
**Zhang, Shutong** (Statistics – Actuarial Science Minor) †  
**Zhang, Wenzhao** (Biostatistics)  
**Zhang, XinYi** (Statistics)  
**Zhang, Zheming** (Data Science) \*  
**Zhang, Zhiyue** (Actuarial Science & Honours Statistics) \*  
**Zhao, Jason** (Statistics & Joint Honours Combinatorics and Optimization) \*  
**Zhao, Jiachen** (Statistics)  
**Zhao, Jianan** (Actuarial Science & Honours Statistics) †  
**Zhao, Yan Song** (Statistics – Economic Theory Minor) †  
**Zhao, Yuanqing** (Statistics & Honours Computational Mathematics – Computing Minor)  
**Zheng, Tong** (Statistics – Applied Mathematics Minor) \*  
**Zheng, Xintong** (Data Science) †  
**Zhong, Kai** (Statistics – Computational Mathematics Minor)  
**Zhou, Jiaheng** (Statistics) \*  
**Zhu, Shuaifeng** (Actuarial Science & Honours Statistics) \*

## HONOURS CO-OPERATIVE PROGRAM

**Ahmed, Faazuddin** (Statistics – Computing Minor, Economics Minor)  
**Alves, Kristen Stacey** (Statistics – Computing Minor)  
**Amin, Islam Mohamed Amin Abdalla** (Data Science) †  
**Baek, Junhyuk** (Business Administration and Mathematics & Honours Mathematical Optimization – Operations Research Specialization – Statistics Minor)  
**Banno, Arcadio Paguio** (Statistics) \*  
**Bell, Rebecca Lynn** (Mathematical Studies – Combinatorics and Optimization Minor, Statistics Minor, French Minor) \*  
**Bhattacharya, Vaibhav** (Actuarial Science & Honours Statistics)  
**Boodoo, Taarik Micah** (Statistics – Economic Theory Minor)  
**Budaraju, Sai Arvind** (Mathematical Studies – Computing Minor, Combinatorics and Optimization Minor, Statistics Minor)  
**Chamberlain, Douglas David William** (Actuarial Science & Honours Statistics) \*  
**Chan, Nicholas Alexander** (Statistics – Computing Minor) \*  
**Chang, Beizhen** (Data Science) \*  
**Chen, Jing Hua** (Actuarial Science & Honours Statistics)  
**Chen, Shijie** (Statistics)  
**Chen, Ye** (Statistics & Honours Information Technology Management)  
**Chen, Yulong** (Actuarial Science & Honours Statistics) \*  
**Chen, Yunn-Chun** (Business Administration and Mathematics & Honours Actuarial Science & Honours Statistics) \*  
**Chen, Yushan** (Actuarial Science/Predictive Analytics Option & Honours Statistics) \*  
**Cheng, Hanjian** (Mathematical Studies – Computing Minor)  
**Cheng, Haosen** (Statistics – Applied Mathematics Minor)  
**Chopra, Kanika Datt** (Statistics) †  
**Chu, Mingyu** (Actuarial Science & Honours Statistics)  
**Cui, Jia** (Business Administration and Mathematics – Computing Minor, Statistics Minor) \*  
**Das, Chitrakut** (Business Administration and Mathematics – Statistics Minor)

\* – Distinction

† – Dean's Honours

- Derraugh, John Alexandros** (Business Administration and Mathematics – Statistics Minor) †
- DING, YIXUAN** (Actuarial Science & Honours Statistics) †
- Dong, Ling** (Actuarial Science & Honours Statistics)
- Dong, Shaohong** (Data Science) \*
- Du, Qingyang** (Statistics)
- Duong, Samco** (Actuarial Science)
- Feng, Rong Yao** (Business Administration and Mathematics & Honours Statistics) †
- Ferrabee, Frances Elizabeth Redican** (Statistics – Combinatorics and Optimization Minor) \*
- Gan, Jingru** (Actuarial Science & Honours Statistics) \*
- Goliya, Tanya** (Statistics – Actuarial Science Minor)
- Gu, Haoyu** (Data Science) †
- Gu, Rita** (Business Administration and Mathematics & Honours Statistics – Actuarial Science Minor)
- Guo, Yining** (Actuarial Science & Honours Statistics)
- Han, Yi** (Statistics) †
- Han, Yu Tong** (Statistics – Computing Minor) \*
- Hardy, Justin Michael** (Statistics – Economics Minor)
- Hogg, Gregory Alexander** (Statistics – Computing Minor)
- Hu, Clarence Man-Ho** (Actuarial Science – Statistics Minor) \*
- Hu, Xi Zhe** (Actuarial Science/Finance Option & Honours Statistics) †
- Huang, Brent** (Business Administration and Mathematics & Honours Mathematical Optimization – Operations Research Specialization – Computing Minor) †
- Huang, Chenlai** (Statistics – Computing Minor)
- Huang, Haichen** (Actuarial Science/Predictive Analytics Option & Honours Statistics)
- Huang, Wenshan** (Actuarial Science & Honours Statistics) \*
- Jain, Arsheya** (Mathematical Studies – Business Specialization – Computing Minor)
- Jardin, Riley Thomas** (Actuarial Science & Honours Statistics) \*
- Jessie Chin Man Wai** (Actuarial Science/Predictive Analytics Option & Honours Statistics) \*
- Jiang, Qi Zhe** (Statistics)
- Jin, Yifan** (Actuarial Science & Honours Statistics & Honours Combinatorics and Optimization) †
- Johnston, Lucas Edward** (Actuarial Science & Honours Statistics)
- Jokel, Alexander Jacob** (Actuarial Science & Honours Statistics) †
- Joyekurun, Ryan Ellis** (Statistics)
- Kamphuis, Nathan Roger** (Actuarial Science & Honours Statistics) \*
- Kang, Ho Bin** (Statistics – Computing Minor)
- Kerr, Hannah Patricia** (Actuarial Science/Predictive Analytics Option) \*
- Keshavji, Amaan Ali** (Joint Actuarial Science & Joint Honours Statistics) †
- Ko, Myoungjin** (Statistics – Combinatorics and Optimization Minor, Economic Theory Minor) \*
- Kuang, Jieqing** (Statistics & Honours Actuarial Science)
- Lamothe, Marco Joseph Samuel** (Statistics – Computer Science Minor) †
- Lau, Yungchak** (Actuarial Science & Honours Statistics)
- Lay, Dillon Kai Jing** (Actuarial Science & Honours Statistics) \*
- Le, Ian Duy** (Actuarial Science & Honours Statistics) †
- Lee, Monica Eugene** (Mathematical Studies – Business Specialization)
- Lee, Yin Tao Candice** (Actuarial Science & Honours Statistics) \*
- Li, Gordon Tao** (Actuarial Science & Honours Statistics) \*
- Li, Shiyuan** (Data Science) \*
- Li, Tiantian** (Statistics – Computing Minor)
- Li Chit Khim, Sharlyn Karina** (Actuarial Science/Predictive Analytics Option & Honours Statistics)
- Liang, Erik** (Statistics & Honours Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*
- Liang, Jingjing** (Actuarial Science/Predictive Analytics Option & Honours Statistics)
- Liao, Yuzhou** (Business Administration and Mathematics & Honours Statistics – Combinatorics and Optimization Minor) †
- Lin, Chen Han** (Business Administration and Mathematics & Honours Mathematical Finance) \*
- Liu, Anqi** (Statistics – Computing Minor)
- Liu, Nianchen** (Data Science) \*
- Liu, Siruo** (Mathematical Studies – Computing Minor)
- Liu, Yu Yang** (Actuarial Science & Honours Statistics) †
- Liu, Ziyi** (Actuarial Science/Predictive Analytics Option & Honours Statistics) \*
- Lu, Jing Ya** (Actuarial Science/Predictive Analytics Option & Honours Statistics) †
- Lu, Zhuye** (Statistics & Honours Computational Mathematics)
- Lyne, Adam Nicholas** (Mathematical Studies – Pure Mathematics Minor, Economics Minor) \*
- Ma, Jiayue** (Data Science – Philosophy Minor)
- Ma, Xiaoxiao** (Statistics – Actuarial Science Minor)
- Malloo, Rithishen** (Actuarial Science & Honours Statistics) †
- Margolis, Elisheva** (Actuarial Science & Honours Statistics)
- McKay, Laura** (Mathematical Studies – Pure Mathematics Minor, Economics Minor)
- Naik, Heta** (Statistics) \*
- Naik, Sanjana Rajendra** (Statistics)
- Ng, Kar Lok** (Statistics – Combinatorics and Optimization Minor, Physics Minor)
- Ng-In-Keng, Stacy Jane Ng Oy Kam** (Actuarial Science & Honours Statistics) \*
- Ning, XianQi** (Business Administration and Mathematics & Honours Statistics – Computing Option) \*
- Ooi, Yi Lin** (Actuarial Science/Predictive Analytics Option & Honours Statistics) \*
- Oonwala, Mohammed Baaqir** (Mathematical Studies – Computing Minor, Applied Mathematics Minor)
- Pan, Yue** (Biostatistics)
- Patni, Rishabh** (Statistics – Actuarial Science Minor) \*
- Plumstead, Jeremiah Daniel** (Mathematical Studies – Computing Minor)
- Prathap Das, Sutej** (Actuarial Science & Honours Statistics) †
- Qi, Yaxin** (Data Science) \*
- Qian, Li Qun** (Actuarial Science & Honours Statistics) \*
- Qin, Han** (Statistics)

\* – Distinction

† – Dean's Honours



**Rahman, Ahnaf Ishmam** (Actuarial Science & Honours Statistics) †

**Rao, Chen Min** (Statistics) \*

**Romero, Justin Rene** (Statistics – Computing Minor) \*

**Sha, Ou** (Statistics) †

**Shezan, Abshar** (Mathematical Studies – Business Specialization – Statistics Minor)

**Shi, Yaqi** (Actuarial Science/ Predictive Analytics Option & Honours Statistics) †

**Shim, Kyu Min** (Business Administration and Mathematics & Honours Statistics – Combinatorics and Optimization Minor) †

**Siddiqui, Fatir** (Actuarial Science & Honours Statistics) \*

**Silas, Joel** (Statistics)

**Sin Fai Lam, Mary Jane Angela** (Actuarial Science & Honours Statistics)

**Sribaskaran, Thibishan** (Actuarial Science & Honours Statistics)

**Sui, Shawn** (Mathematical Studies – Computing Minor)

**Sun, Linyin** (Actuarial Science/ Finance Option & Honours Statistics) †

**Sun, Zhewen** (Actuarial Science & Honours Statistics) \*

**Tam, Nicole Wing-Hei** (Mathematical Studies – Business Specialization – Computing Minor)

**Tam, Rachael** (Actuarial Science – Predictive Analytics Specialization & Honours Statistics)

**Tang, Yuting** (Data Science) †

**Tao, Joyce** (Business Administration and Mathematics & Honours Statistics)

**Tao, Yihong** (Business Administration and Mathematics & Honours Statistics) \*

**Tham, Vimi** (Business Administration and Mathematics)

**Tian, Yifei** (Statistics – Actuarial Science Minor) \*

**Tsybulsky, Alexei** (Business Administration and Mathematics – Statistics Minor)

**van Leeuwen, Dexter Maxwell** (Statistics – Computational Mathematics Minor, Computing Minor)

**Wang, Cheng** (Actuarial Science & Honours Statistics) \*

**Wang, Jenny** (Statistics – Computing Minor)

**Wang, Mushi** (Data Science – Combinatorics and Optimization Minor) \*

**Wang, Pei** (Business Administration and Mathematics & Honours Statistics & Honours Mathematical Finance) †

**Wang, Taohao** (Data Science) \*

**Wang, Yafan** (Data Science) \*

**Wang, Yeke** (Actuarial Science & Honours Biostatistics)

**Wang, Zhu** (Statistics & Joint Honours Actuarial Science & Honours Math/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*

**Weng, Yue** (Actuarial Science/ Predictive Analytics Option & Honours Statistics & Honours Combinatorics and Optimization) †

**Winnett, John Alexander** (Data Science) \*

**Wong, Tsz Foon** (Actuarial Science/ Predictive Analytics Option & Honours Statistics) †

**Wu, Peiyun** (Statistics – Actuarial Science Minor) \*

**Xiao, Rong** (Actuarial Science & Honours Statistics) \*

**Xu, Bei Ning** (Statistics – Combinatorics and Optimization Minor, Computational Mathematics Minor)

**Xu, Shiqing** (Data Science – Computational Mathematics Minor) \*

**Yang, Lele** (Business Administration and Mathematics & Honours Statistics) †

**Yang, Liuqing** (Actuarial Science – Predictive Analytics Specialization & Honours Statistics) \*

**Yang, Yujing** (Statistics – Economics Minor)

**Yao, Luhan** (Actuarial Science/ Predictive Analytics Option & Honours Statistics) †

**Ye, Jingjing** (Actuarial Science & Honours Statistics) \*

**Yin, Qi** (Actuarial Science & Honours Statistics) \*

**Yit, Cherian Chiuen** (Data Science)

**Young, Madeleine Grace** (Statistics – Computing Minor) \*

**YU, Mingxuan** (Statistics) \*

**Yu, Naijing** (Actuarial Science & Honours Statistics) \*

**Yuan, Dingzhe** (Data Science) \*

**Zeng, Zhicheng** (Biostatistics) \*

**Zhang, Caitlin** (Statistics) \*

**Zhang, Kexin** (Actuarial Science & Honours Statistics) \*

**Zhang, Oscar Yong Qi** (Business Administration and Mathematics & Honours Statistics) †

**Zhang, Rui** (Business Administration and Mathematics & Honours Statistics) \*

**Zhang, Shihui** (Statistics) \*

**Zhang, Terry Tingyu** (Actuarial Science/ Predictive Analytics Option) \*

**Zhang, Weixiao** (Actuarial Science & Honours Statistics) †

**Zhang, Yixuan** (Statistics – Computing Minor) \*

**Zhang, Yiyao** (Business Administration and Mathematics & Honours Computational Mathematics – Statistics Minor)

**Zhao, Feifan** (Mathematical Studies – Statistics Minor, Computing Minor)

**Zhao, Justin** (Actuarial Science)

**Zheng, Quan** (Statistics – Economics Minor)

**Zhong, Haolun** (Statistics & Honours Actuarial Science) \*

**Zhou, Jin Hua** (Actuarial Science & Honours Statistics) \*

**Zhu, Hengxu** (Actuarial Science & Honours Statistics) \*

**Zhu, Yingsi** (Actuarial Science & Honours Statistics) \*

**Zong, Jianqiao** (Data Science) †

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## DIPLOMA IN ENGLISH FOR MULTILINGUAL SPEAKERS

Kwok, Tsoi Tung

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## DIPLOMA IN JAPANESE LANGUAGE I

van Leeuwen, Dexter Maxwell  
Xu, Bei Ning

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## DIPLOMA IN JAPANESE LANGUAGE II

Lau, Yungchak  
Zong, Jianqiao

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## DIPLOMA IN KOREAN LANGUAGE I

Wang, Xinyue

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## CERTIFICATE IN EXPERIENTIAL EDUCATION

Chatoor, Amanda Isabelle  
Chen, Sitong  
Halden, Cody Brayden

\* – Distinction

† – Dean's Honours



# EVENING CEREMONY

Degrees and diplomas from:  
**UNIVERSITY OF WATERLOO**  
**FACULTY OF MATHEMATICS**

# Graduate Degrees

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## DOCTOR OF PHILOSOPHY

**de Ramon Rivera, Jose** (Applied Mathematics)

“Measurements of Quantum Fields and the Unruh Effect: A Particle Detector Perspective”

**Farsi, Milad** (Applied Mathematics)

“Model-Based Reinforcement Learning of Nonlinear Dynamical Systems”

**Jentsch, Peter Carl** (Applied Mathematics)

“Coupled Models of Structured Contagion Processes in Human-Environment Systems”

**Lovitz, Benjamin** (Applied

Mathematics - Quantum Information)  
“Tensors: Entanglement, Geometry, and Combinatorics”

**Majmudar, Jimit** (Combinatorics and Optimization)

“Recovery Guarantees for Graph Clustering Problems”

**McCarty, Rose Marie** (Combinatorics and Optimization)

“Local Structure for Vertex-Minors”

**Murley, June W** (Applied Mathematics)

“Long-Time Behavior of a Coupled PDE Model of High Intensity Focused Ultrasound Heating of Biological Tissue”

**Nevin, Joshua Alexander**

(Combinatorics and Optimization)  
“Thomassen’s 5-Choosability Theorem Extends to Many Faces”

**Shen, Yuan** (Applied Mathematics)

“Synchronization of Complex-Valued Dynamical Networks”

**Stuive, Leanne Elise** (Combinatorics and Optimization)

“Comparing Intersection Cut Closures Using Simple Families of Lattice-Free Convex Sets”

**Sullivan, Matthew** (Combinatorics and Optimization)

“Simple Drawings of  $K_n$  from Rotation Systems”

---

## MASTER OF MATHEMATICS

**Baier-Reinio, Aaron Matthew** (Applied Mathematics)

**Bell, Thomas William** (Applied Mathematics)

**Chalaturnyk, Jonathan**

(Computational Mathematics – Co-operative Program)

**El Mandouh, Mohamed Ayman**

(Applied Mathematics - Quantum Information)

**Gerstbrein, Matthew Louis**

(Combinatorics and Optimization)

**Gilchrist, Valerie** (Combinatorics and Optimization)

**Hu, Simeng Simone** (Combinatorics and Optimization)

**Li, Hongyu** (Combinatorics and Optimization)

**Li, Yanjia** (Combinatorics and Optimization)

**Lin, Jun Hong** (Computational Mathematics – Co-operative Program)

**Liu, Fei** (Applied Mathematics)

**Liu, Yinchen** (Combinatorics and Optimization - Quantum Information)

**Lowe, Angus Joon** (Combinatorics and Optimization - Quantum Information)

**MacDonald, Colter Scott**

(Combinatorics and Optimization)

**Medjedovic, Andean** (Pure Mathematics)

**O’Neel-Judy, Etude** (Combinatorics and Optimization - Quantum Information)

**Patterson, Aidan Edward** (Pure Mathematics)

**Prandi, Joaquin Gabriel** (Pure Mathematics)

**Santoli, Steven** (Combinatorics and Optimization)

**White, Anderson Reed Monteal** (Applied Mathematics)

**Zhu, Shuhui** (Computational Mathematics – Co-operative Program)

---

## MASTER OF MATHEMATICS FOR TEACHERS

Adamski, Jacqueline  
Arbique, Amber Nicole  
Bailey, Dana Lee

Bent, Thomas Jeffrey  
Brinkman, Joshua

Canham, Jamie Kay  
Donally, Kathleen

Fong, Ho King Alan  
Fordham, Bryan Keith

Gagnon, Whitney Maureen  
Geffen, Darryl Joseph

Gregorio, Julia L

Hussain, Omman Akhtar  
Joannou, Christine Elizabeth

Leadbetter, Shoneth Andrea  
Lobb, Richard

Ma, Ka Chun

Matheson, Erin Helen  
McKinnon, Scott Gregory

McNamara, Daniel John

Moore, Alison Lane

Moore, David Jordan

Neal Langdon, Christian Robert

North, Guy Micheal

Nuic, Joseph Mario

Pearn, Shyanne Rickelle

Pepper, Louise Elizabeth

Pittman, Jenelle Sara Marie

Ridge, Fraser Hamilton

Schultz, Alyssa Ann

Smith, Claudia Danielle

Sorensen, Ashley Laura

Spear, Jacqueline

Sun, Jinling

Tait, Elizabeth Kathleen

Yang, Yunxiao

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## GRADUATE CERTIFICATE

**Humeniuk, Adam Gregory** (University Teaching)

**Lang, Christopher James** (University Teaching)

**Redlin, Shayla Annalise** (University Teaching)

**Ursu, Dan** (University Teaching)

# Undergraduate Degrees

## BACHELOR OF MATHEMATICS

### HONOURS PROGRAM

**Abdul-Samad, Kareem** (Mathematical Physics – Computer Science Minor)

**Aggarwal, Yogesh** (Computational Mathematics & Joint Honours Combinatorics and Optimization)

**Ai, Aoxiong** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*

**Ascroft, Laura Yang Xin** (Computational Mathematics – Computing Minor)

**Austria, Dominic Gene** (Combinatorics and Optimization & Joint Honours Pure Mathematics) \*

**Baeyens, Jesse** (Applied Mathematics) \*

**Bhatia, Pulkit** (Computational Mathematics & Joint Honours Statistics)

**Boldt, Vincent** (Pure Mathematics – Physics Minor) †

**Carrera Rodríguez, María Gabriela** (Applied Mathematics – Economics Minor) \*

**Chan, William** (Combinatorics and Optimization & Honours Pure Mathematics) †

**Chang, Haocheng** (Applied Mathematics & Honours Statistics) \*

**Chang, Lo-Wei** (Computational Mathematics & Honours Statistics – Computing Minor) \*

**Chen, Han** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization)

**Chen, Longhui** (Combinatorics and Optimization & Honours Computational Mathematics) \*

**Chen, Mingyuan** (Mathematics/Business Administration)

**Chen, Yueting** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization) †

**Chiew, Wen Cheen** (Computational Mathematics)

**Chow, Edmund P H** (Combinatorics and Optimization – Pure Mathematics Minor)

**Collins, Shane Elliott Walter** (Computational Mathematics – German Minor)

**Dai, Anan** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*

**Dai, Dongshu** (Pure Mathematics & Honours Combinatorics and Optimization) †

**De Silva, Kariyawasam Kanattage Thinula** (Pure Mathematics & Honours Combinatorics and Optimization – Statistics Minor) \*

**Deng, Chuyi** (Mathematics/Business Administration – Statistics Minor)

**Ding, Yifei** (Mathematics/Business Administration)

**Eng, Jason** (Computational Mathematics – Computing Minor)

**Fa, Juxin** (Computational Mathematics & Joint Honours Combinatorics and Optimization – Pure Mathematics Minor, Computing Minor) \*

**Fan, Kaitong** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*

**Fan, Xiaowei** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization)

**Fan, Xintong** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Computing Minor)

**Fang, Tony** (Information Technology Management) \*

**Fu, Hongbo** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization & Honours Statistics) \*

**Ganteaume, Ross Ruadhan** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization)

**Gao, Shirong** (Mathematical Finance & Honours Statistics)

**Gao, Shuo** (Pure Mathematics) †

**Gao, Wen** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization)

**Ge, Xujuan** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization – Statistics Minor) \*

**Guo, Handong** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*

**Guo, Zhihao** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*

**He, Yanqing** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization)

**He, Zizun** (Mathematics/Business Administration)

**Hildebrandt, Alexandra Joan** (Pure Mathematics & Honours Combinatorics and Optimization) \*

**Hou, Bohan** (Mathematical Finance) \*

**Hou, Bolun** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization & Honours Statistics – Computing Option) \*

**Hu, Hongfei** (Computational Mathematics – Computer Science Minor, Statistics Minor) †

**Hu, Xuanming** (Combinatorics and Optimization & Honours Computational Mathematics – Computing Minor)

**Hu, Yunqin** (Computational Mathematics & Honours Statistics – Combinatorics and Optimization Minor)

**Huang, Yiqi** (Applied Mathematics & Honours Statistics) \*

**Huang, Yuyang** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization & Honours Actuarial Science) \*

**Huang, Zhaowei** (Applied Mathematics)

**Huang, Zongbai** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Actuarial Science – Predictive Analytics Specialization & Joint Honours Statistics – Computing Minor) †

\* – Distinction

† – Dean's Honours

- Huck, Indira Joan** (Mathematical Physics)
- Inthiran, Ajjan** (Mathematics/Business Administration – Economics Minor)
- Jia, Yuxin** (Applied Mathematics – Pure Mathematics Minor) †
- Jiao, Yusen** (Information Technology Management – Statistics Minor)
- Jin, Shurui** (Applied Mathematics & Honours Statistics) \*
- Jin, Yujie** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization)
- Josefin, Jaden** (Mathematical Economics – Statistics Minor)
- Khandaker, Shehrooz** (Computational Mathematics – Combinatorics and Optimization Minor, Computing Minor)
- Lamba, Nipun** (Computational Mathematics & Honours Statistics)
- Le Breton, Christian Shawn Sjoberg** (Combinatorics and Optimization – Computing Minor) \*
- Legare, Sierra** (Applied Mathematics) †
- Li, Dailin** (Pure Mathematics)
- Li, Han** (Computational Mathematics & Honours Statistics)
- Li, Jiacheng** (Mathematics/Business Administration – Statistics Minor)
- Li, Meng Ting** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Statistics Minor) \*
- Li, Qi Ying** (Mathematics/Business Administration – Computing Minor)
- Li, Shuhao** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Statistics Minor) \*
- Li, Yian** (Mathematics/Business Administration)
- LI, Yuxuan** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization) †
- Li, Zhiben** (Combinatorics and Optimization & Honours Computational Mathematics)
- Li, Zhixuan** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Statistics Minor)
- Li, Zhuonan** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization) \*
- Liang, Qichi** (Mathematics/Business Administration & Honours Statistics)
- Lin, Qiao** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization) \*
- Lin, Zhuoya** (Mathematics/Business Administration)
- Liu, Huixin** (Computational Mathematics – Computing Minor)
- Liu, Mingyu** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization & Honours Statistics)
- Liu, Xiaonan** (Mathematical Finance & Honours Statistics) †
- Liu, Yixuan** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization) \*
- Liu, Yuwei** (Combinatorics and Optimization & Honours Statistics) \*
- Liu, Ziyu** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Statistics Minor) \*
- Lyu, Miaozheng** (Applied Mathematics with Scientific Computing) \*
- Ma, Ziao** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization)
- Malhotra, Shivesh** (Information Technology Management)
- Mao, Jiaqi** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization – Statistics Minor) \*
- McQuay, Proticcho Liam** (Pure Mathematics) †
- Mehta, Devansh** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization)
- Meng, Jun** (Applied Mathematics & Honours Statistics)
- Park, Chan Woo** (Mathematics/Business Administration)
- Park, Mokheon** (Computational Mathematics – Computing Minor, Combinatorics and Optimization Minor)
- Paul, Ninuksha** (Mathematics/Business Administration – Economics Minor)
- Piracha, Nawazish Ali** (Mathematics/Business Administration) \*
- Ponepal, Timothy James** (Pure Mathematics & Honours Applied Mathematics)
- Qiu, Siyu** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization – Statistics Minor) †
- Ragula, Boris** (Mathematical Physics & Joint Honours Pure Mathematics) \*
- Reinert, Nathan Richard** (Pure Mathematics & Honours Combinatorics and Optimization) \*
- Ren, Xiaoyue** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization) \*
- Samiei, Siavash** (Pure Mathematics & Honours Computer Science) †
- Sanjaya, Gian Cordana** (Pure Mathematics & Honours Computer Science) †
- Shang, Juncen** (Mathematics/Business Administration)
- Shen, Fanrui** (Mathematical Finance & Joint Honours Statistics – Pure Mathematics Minor) †
- Shen, Yiliang** (Applied Mathematics – Computational Mathematics Minor)
- Shen, Zhouchen** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Statistics Minor) \*
- Sheng, Yuwen** (Mathematical Finance – Pure Mathematics Minor) \*
- Shi, Haoyan** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization) \*
- Singh, Prabhnoor** (Computational Mathematics & Joint Honours Statistics)
- Sinha, Animesh** (Pure Mathematics)
- Solozano, Danicia Maria** (Mathematics/Financial Analysis & Risk Management–Professional Risk Management Specialization – Event Management Minor)
- Soychak, John** (Applied Mathematics & Joint Honours Pure Mathematics)
- Stachowich, Jarod Ross** (Applied Mathematics – Computing Minor) \*
- Su, Tianchun** (Combinatorics and Optimization)
- Szeto, Stanley** (Computational Mathematics)
- Tam, Ka Ying Sophia** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization)
- Temnik, Shelly** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization) †

\* – Distinction

† – Dean's Honours

- Tian, Yuqing** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management-Specialization) \*
- Vallapuram, Amitha** (Combinatorics and Optimization – Music Minor) \*
- Waheed, Maham** (Mathematics/Business Administration)
- Wan, Weixizheng** (Information Technology Management – Statistics Minor)
- Wang, Houji** (Applied Mathematics & Honours Combinatorics and Optimization)
- Wang, Junyi** (Applied Mathematics – Engineering Specialization) \*
- Wang, Lin Qi** (Mathematical Economics – Pure Mathematics Minor, Statistics Minor) \*
- Wang, Ruo** (Mathematical Finance) †
- Wang, Tianyu** (Information Technology Management)
- Wang, Yuhan** (Information Technology Management)
- Wang, Zeshan** (Mathematics/Business Administration)
- Wei, Yuyang** (Computational Mathematics)
- Wen, Bo** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor)
- Wen, Yunfei** (Mathematical Physics & Honours Statistics) †
- Witmer, Jonathan William** (Mathematics/Business Administration)
- Wu, Haoxing** (Mathematical Finance – Statistics Minor) \*
- Wu, Peizhi** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Statistics) \*
- Wu, Xuanxiao** (Computational Mathematics – Combinatorics and Optimization Minor, Management Studies Minor, Statistics Minor)
- Wu, Ziyuan** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Statistics) \*
- Xi, Ziyue** (Mathematics/Business Administration – Statistics Minor)
- Xiang, Haimi** (Mathematical Optimization – Operations Research Specialization & Honours Statistics – Computing Minor)
- Xiao, Zining** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization) \*
- Xu, Hanzhi** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Yan, Mulin** (Combinatorics and Optimization & Honours Computational Mathematics) \*
- Yan, Xin** (Combinatorics and Optimization & Honours Statistics) †
- Yan, Yige** (Applied Mathematics with Scientific Computing – Statistics Minor, Economics Minor) \*
- Yan Wu, Alejandro** (Joint Pure Mathematics & Joint Honours Combinatorics and Optimization – Philosophy Minor)
- Yang, David** (Computational Mathematics)
- Yang, Fubin** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization)
- Yang, Jason Julius** (Applied Mathematics) \*
- YANG, JIONGMING** (Mathematical Finance & Joint Honours Actuarial Science) \*
- Yi, Zhangtao** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization)
- Yin, Ruochen** (Mathematics/Business Administration) †
- Yu, Tianzhou** (Computational Mathematics – Combinatorics and Optimization Minor, Computing Minor) \*
- YU, YE** (Mathematical Finance & Honours Statistics & Joint Honours Pure Mathematics)
- Yuan, Rongyan** (Mathematical Finance – Statistics Minor) \*
- Zaionz, Jonathan** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization) \*
- Zehr, Owen Tristan Kremer** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Actuarial Science)
- Zeng, Ming De** (Computational Mathematics – Computing Minor, Statistics Minor)
- Zhai, Yujia** (Mathematical Economics – Statistics Minor) \*
- Zhang, Dingquan** (Mathematics/Business Administration)
- Zhang, Huiwen** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Statistics) †
- Zhang, Lei** (Applied Mathematics – Physics Specialization & Honours Combinatorics and Optimization & Joint Honours Pure Mathematics)
- Zhang, Xiaoyue** (Mathematics/Business Administration) \*
- Zhang, Xinyang** (Combinatorics and Optimization)
- Zhang, Yifu** (Applied Mathematics & Honours Computational Mathematics – Statistics Minor, Computing Minor)
- Zhang, Yiyang** (Computational Mathematics – Computing Minor, Combinatorics and Optimization Minor)
- Zhang, Yue** (Mathematics/Financial Analysis & Risk Management – Chartered Financial Analyst Specialization) \*
- Zhao, Jessica Yun-Hao** (Mathematics/Financial Analysis & Risk Management –Chartered Financial Analyst Specialization)
- Zhao, Yuhan** (Mathematical Finance – Statistics Minor) \*
- Zheng, Cheng** (Applied Mathematics/Physics Option)
- Zhou, Zhuo Ting** (Applied Mathematics with Scientific Computing – Computing Minor) \*
- Zhu, Jian** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Zuo, Chenpei** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization)

#### HONOURS CO-OPERATIVE PROGRAM

- Ai, Xinyu** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Armstrong, Christopher Ada** (Combinatorics and Optimization – Pure Mathematics Minor) \*
- Bai, Jinyang** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization)
- Bai, Yuyang** (Mathematical Finance – Statistics Minor, Pure Mathematics Minor) \*
- Bhurtun, Nivedita** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)

\* – Distinction  
† – Dean's Honours

- Brown, Dylan Edward** (Mathematics-Chartered Professional Accountancy – Computing Minor) †
- Brunt, Benjamin Isaac** (Mathematics-Chartered Professional Accountancy – Computing Minor) \*
- Buskard, Easton** (Combinatorics and Optimization – Pure Mathematics Minor)
- Callicharan, Abhaye Rudra Kumar** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Castro Jara, Rosy** (Computational Mathematics – International Trade Minor)
- Chadha, Arjun** (Applied Mathematics)
- Chappell, Caleb Nicholas** (Combinatorics and Optimization & Honours Computational Mathematics – Computer Science Minor) †
- Chawla, Sarthak** (Computational Mathematics – Combinatorics and Optimization Minor)
- Chen, Jiwei** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Computing Minor) \*
- Chen, Sidan** (Mathematical Finance & Honours Statistics) †
- Chen, Wanyi** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) †
- Chen, Xinran** (Mathematics/Business Administration – Statistics Minor)
- Chen, Xinyi** (Mathematics/Business Administration) †
- Cheung, Anthony Yin Ming** (Mathematics/Business Administration)
- Chi, Ziyu** (Mathematical Finance – Statistics Minor, Pure Mathematics Minor) †
- Cho, Gyu Yeon** (Mathematics-Chartered Professional Accountancy)
- Chun, Harrison** (Computational Mathematics)
- Chung, Hok Yin** (Computational Mathematics – Computer Science Minor)
- Coe, Duncan Edward** (Combinatorics and Optimization – Economic Theory Minor)
- Cui, Fengqi** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Dai, Rui** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor)
- Dai, Wenjing** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*
- Dawang, Noah** (Mathematical Physics – Statistics Minor) †
- Dong, He Chu** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor)
- Fang, Jianye** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization & Honours Statistics) †
- Fellini, Katherine Nicole** (Mathematical Economics) \*
- Feng, Janice Anne** (Mathematics-Chartered Professional Accountancy) \*
- Fong, Pei fen Fanny** (Mathematics-Chartered Professional Accountancy) \*
- Gaghadar, Reese Christopher** (Mathematical Optimization – Operations Research Specialization – Management Studies Minor) \*
- Ganeshamoorthy, Aarranya** (Mathematics-Chartered Professional Accountancy)
- Gao, Jiayi** (Mathematics-Chartered Professional Accountancy – Computing Minor) \*
- Geng, Yuxin** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor)
- Gerson, Eric William** (Mathematics/Business Administration)
- Ghaznavi, Muhammad Saad Ali** (Pure Mathematics & Honours Statistics) \*
- Gokulsing, Shreya** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) \*
- Gul, Saadia** (Mathematics-Chartered Professional Accountancy)
- Haase, Noah Alexander** (Mathematics-Chartered Professional Accountancy – Computing Minor)
- Hanspal, Gurpreet Kaur** (Combinatorics and Optimization – Pure Mathematics Minor)
- He, Ying** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) †
- Hou, Yuhan** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Hu, Yue** (Mathematical Finance) †
- Hua, Yuqi** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Huang, Jing Ran** (Mathematics/Chartered Professional Accountancy – Finance Option) \*
- Huang, Linya** (Computational Mathematics – Combinatorics and Optimization Minor, Computing Minor)
- Huang, Yiping** (Computational Mathematics – Combinatorics and Optimization Minor, Statistics Minor)
- Huang, Yuwen** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Hung, Tzu-Ko** (Mathematical Optimization – Business Specialization – Statistics Minor) \*
- Jee, Minjoung** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Jiang, Bingyi** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Jiang, Mingyi** (Mathematical Finance & Honours Statistics – Pure Mathematics Minor, Combinatorics and Optimization Minor) \*
- Jiang, Wenhan** (Mathematical Finance) †
- Jiang, Zixin** (Mathematical Finance & Honours Statistics) †
- Jotsinghani, Nikhita** (Mathematics/Business Administration – Computing Minor)
- Kassam, Cameron Deen** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Keofethile, Laone Alfred** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)

\* – Distinction

† – Dean's Honours

- Kipfer, Micah John** (Mathematics/Teaching)
- Korlapati, Sai Ratna Sindhuja** (Applied Mathematics)
- Kumar, Nidhi Manoj** (Mathematical Finance & Honours Statistics) \*
- Kurke, Josué Marius** (Pure Mathematics & Honours Combinatorics and Optimization) †
- Lai, Eric** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization & Honours Statistics)
- Lee, Thomas David** (Combinatorics and Optimization – Pure Mathematics Minor) †
- Lee, Wai Yan** (Mathematical Economics)
- Leung, Jody Hue Tung** (Mathematics-Chartered Professional Accountancy) \*
- Lew, Caleb Barnabas** (Mathematics/Teaching – Pure Mathematics Minor, Music Minor) \*
- Li, Baoyu** (Computational Mathematics & Honours Statistics)
- Li, Janet** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor) †
- Li, Rico** (Mathematics/Chartered Professional Accountancy – Finance Option) \*
- Li, Rui Jun** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Li, Rui Xin** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Li, Shiyao** (Computational Mathematics – Statistics Minor)
- Li, Xinyang** (Applied Mathematics & Honours Computational Mathematics – Statistics Minor, Computing Minor) \*
- Li, Yao** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor) \*
- Li, Yueying** (Mathematical Finance & Honours Statistics) \*
- LI, Zisen** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Liang, Jiayin** (Mathematical Finance – Statistics Minor) \*
- Liang, Thomas Mingen** (Combinatorics and Optimization & Honours Computational Mathematics)
- Liang, Ziyu** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor) †
- Liao, Yongshan** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor)
- Lin, Wan-Chen** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Liu, Ao** (Computational Mathematics & Honours Statistics – Computing Minor)
- Liu, Jiawen** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Liu, Junhong** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) \*
- Liu, Xuezhu** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization – Statistics Minor)
- Liu, Yingtong** (Mathematics-Chartered Professional Accountancy – Computing Minor) \*
- Liu, Yunzhe** (Combinatorics and Optimization)
- Liu, Zhaoyang** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Liu, Zheyi** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization – Statistics Minor) †
- Longworth, Nathan Jacob** (Applied Mathematics – Computer Science Minor) \*
- Lu, Kaiyuan** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) †
- Lu, Xiangzhu** (Computational Mathematics – Combinatorics and Optimization Minor, Economics Minor, Computing Minor)
- Lu, Xueyun** (Mathematics/Chartered Professional Accountancy – Finance Option) \*
- Luo, Junwen** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Luo, Qifan** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization & Honours Statistics)
- Luo, Wenjin** (Mathematics/Business Administration)
- Ma, Jingyu** (Mathematics/Financial Analysis & Risk Management-Professional Risk Management Specialization) †
- Ma, Yue Yao** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Marfua, Samka** (Joint Combinatorics and Optimization & Joint Honours Statistics)
- Maung, Phone Khaing** (Mathematics/Business Administration)
- McDougall, Paige Isabelle** (Applied Mathematics – Biology Specialization) \*
- Melamed, Samuel Mitchell** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization) \*
- Meng, Ling Cheng** (Mathematics-Chartered Professional Accountancy – Computing Minor)
- Mukherjee, Amartya** (Applied Mathematics with Scientific Computing – Statistics Minor) \*
- Murphy, Alice Nancy Lulu** (Combinatorics and Optimization – Physics Minor) \*
- Narang, Saryu** (Mathematics-Chartered Professional Accountancy)
- Ngew, Shwen Lyng** (Computational Mathematics & Honours Statistics – Computing Minor)
- Ngo, Frederick Run** (Combinatorics and Optimization & Honours Statistics – Pure Mathematics Minor) \*
- Ni, Qingyang** (Applied Mathematics – Engineering Specialization) †
- Orok, Gavin Jeffrey** (Mathematical Finance – Computing Option)
- Pai, Evan I-Fan** (Computational Mathematics – Combinatorics and Optimization Minor, Computing Minor) \*
- Pan, Chuyu** (Mathematics/Chartered Professional Accountancy – Finance Option) \*
- Panghal, Dwiti** (Mathematics/Financial Analysis & Risk Management-Chartered Financial Analyst Specialization)
- Patel, Makalp Kalpin** (Combinatorics and Optimization – Pure Mathematics Minor, Computational Mathematics Minor) \*
- Peng, Yihan** (Mathematical Finance – Statistics Minor) \*

\* – Distinction

† – Dean's Honours



**Peng, Yuxuan** (Mathematics/  
Chartered Professional Accountancy –  
Finance Option) †

**Percy, Simone Asha** (Combinatorics  
and Optimization – Pure Mathematics  
Minor) †

**Ramlochun, Keshini** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization)

**Ramsurrun, Mukeshsingh**  
(Mathematics/Financial Analysis &  
Risk Management-Chartered  
Financial Analyst Specialization) \*

**Reesaul, Jashveer Karan**  
(Mathematics/Financial Analysis &  
Risk Management-Chartered  
Financial Analyst Specialization)

**Ren, Boru** (Mathematical Finance &  
Honours Statistics) †

**Sethi, Raghav** (Computational  
Mathematics & Joint Honours  
Combinatorics and Optimization &  
Joint Honours Geomatics –  
Computing Minor)

**Shah, Shivam Milan** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization)

**Sharma, Kanan** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization)

**Shi, Huichuan** (Mathematical  
Finance – Computer Science Minor,  
Pure Mathematics Minor) †

**Shpigel, Renata Ann** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization) †

**Shu, Feiyue** (Mathematics/Financial  
Analysis & Risk Management-  
Chartered Financial Analyst  
Specialization – Statistics Minor)

**Shu, Hwai Huey** (Mathematics-  
Chartered Professional  
Accountancy) \*

**Shu, Zhi Quan** (Mathematical  
Economics & Honours Mathematical  
Finance & Honours Statistics) †

**Shuai, Minjun** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization & Joint  
Honours Actuarial Science) †

**Slavitch, Noah Michael Rathjen**  
(Pure Mathematics) †

**Smith, Jasmine Aimee**  
(Mathematics/Business  
Administration)

**Son, Susie** (Computational  
Mathematics – Computing Minor)

**Song, Xiaoting** (Combinatorics  
and Optimization – Computational  
Mathematics Minor, Computing  
Minor)

**Soobrayen, Mandurvi**  
(Mathematics/Financial Analysis &  
Risk Management-Chartered  
Financial Analyst Specialization)

**Sukiban, Strahinja** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization) \*

**Sun, Kai** (Computational  
Mathematics & Honours Statistics –  
Computing Minor)

**Sun, Yuchen** (Mathematics/Business  
Administration)

**Sun, Zijie** (Applied Mathematics)

**Tan, Ruoyi** (Mathematics/Business  
Administration)

**Tan, Xiao** (Mathematics/Financial  
Analysis & Risk Management-  
Professional Risk Management  
Specialization – Statistics Minor) †

**Tandon, Akhil** (Information  
Technology Management)

**Tong, Ellen Liyang** (Mathematics/  
Chartered Professional Accountancy –  
Finance Option) \*

**Tran, Huynh Phuong Uyen**  
(Mathematics/Financial Analysis &  
Risk Management-Chartered  
Financial Analyst Specialization) †

**Virsik, Barbara Natalie**  
(Computational Mathematics &  
Joint Honours Combinatorics and  
Optimization)

**Vujadinovic, Filip** (Mathematical  
Optimization – Operations Research  
Specialization – Statistics Minor)

**Wan, Lihong** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization –  
Statistics Minor) †

**Wan, Zixuan** (Mathematical Finance &  
Honours Combinatorics and  
Optimization) \*

**Wang, Hanyu** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization)

**Wang, Haochen** (Applied  
Mathematics & Joint Honours  
Combinatorics and Optimization &  
Joint Honours Pure Mathematics) \*

**Wang, Luming** (Mathematics/  
Chartered Professional Accountancy –  
Finance Option) \*

**Wang, Qiyao** (Mathematics/  
Business Administration)

**Wang, Xiyao** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization &  
Honours Statistics) †

**Wang, XueHan** (Mathematics-  
Chartered Professional  
Accountancy) †

**Wardell, Phillip Anthony**  
(Mathematics/Business  
Administration – Computing Minor) \*

**Whiting, Shawn David**  
(Mathematics-Chartered  
Professional Accountancy –  
Computing Minor) \*

**Wloch, Olha Anastasia**  
(Combinatorics and Optimization –  
Pure Mathematics Minor) \*

**Wu, Dinghang** (Mathematics/  
Business Administration)

**Wu, Shenhan** (Mathematical  
Finance & Joint Honours Statistics –  
Pure Mathematics Minor) †

**Xie, Ninglu** (Mathematics/Financial  
Analysis & Risk Management-  
Chartered Financial Analyst  
Specialization) †

**Xie, Xin Yi** (Mathematics/Chartered  
Professional Accountancy – Finance  
Option) \*

**Xing, Xintong** (Mathematics/  
Business Administration & Honours  
Statistics)

**Xu, Runhai** (Computational  
Mathematics & Honours Statistics –  
Combinatorics and Optimization  
Minor) \*

**Yan, Linfeng** (Mathematics/Business  
Administration – Statistics Minor)

**Yang, Modi** (Mathematics/Financial  
Analysis & Risk Management-  
Chartered Financial Analyst  
Specialization)

**Yang, Xiao Han** (Mathematics-  
Chartered Professional  
Accountancy)

**Yang, Yiyan** (Mathematics/Financial  
Analysis & Risk Management-  
Professional Risk Management  
Specialization) \*

**Yang, Zichen** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization) \*

**Yao, Chengkun** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization –  
Combinatorics and Optimization  
Minor, Statistics Minor, Computing  
Minor) †

\* – Distinction

† – Dean's Honours

**Ye, Juezhao** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization – Statistics  
Minor) \*

**Ye, Xu Ting** (Mathematics/Financial  
Analysis & Risk Management-  
Chartered Financial Analyst  
Specialization & Honours Statistics) \*

**Yi, Xiang** (Mathematics/Financial  
Analysis & Risk Management-  
Chartered Financial Analyst  
Specialization – Computing Minor) \*

**Yu, Zhen Rong** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization & Honours  
Statistics) \*

**Yuan, Xin Ning** (Mathematics/  
Chartered Professional  
Accountancy – Finance Option)

**Zeng, Yiwei** (Mathematics/Financial  
Analysis & Risk Management-  
Professional Risk Management  
Specialization & Honours Statistics) †

**Zha, Liboke** (Mathematics-  
Chartered Professional  
Accountancy)

**Zhang, Jing Xian** (Mathematics-  
Chartered Professional  
Accountancy) \*

**Zhang, Jingya** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization –  
Statistics Minor) \*

**Zhang, Kexin** (Mathematical  
Economics – Statistics Minor, Pure  
Mathematics Minor)

**Zhang, Ling Yi** (Mathematics/  
Business Administration) \*

**Zhang, Yi Xuan** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization) \*

**Zhao, Wuyang** (Mathematics/  
Chartered Professional Accountancy –  
Finance Option) \*

**Zhao, Yangrong** (Combinatorics and  
Optimization & Joint Honours Pure  
Mathematics)

**Zhou, Cathy Julia** (Mathematics/  
Chartered Professional Accountancy –  
Finance Option) \*

**Zhu, Jasmine** (Mathematics/  
Financial Analysis & Risk  
Management-Chartered Financial  
Analyst Specialization) \*

**Zhu, Qingqing** (Mathematics/  
Financial Analysis & Risk  
Management-Professional Risk  
Management Specialization –  
Statistics Minor) \*

**Zhu, Yuying** (Mathematics/Financial  
Analysis & Risk Management-  
Professional Risk Management  
Specialization – Statistics Minor) \*

**Zhuo, Weixi** (Pure Mathematics &  
Honours Mathematical Finance &  
Honours Statistics) †

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## DIPLOMA IN ENGLISH FOR MULTILINGUAL SPEAKERS

Tan, Ruoyi

---

## DIPLOMA OF EXCELLENCE IN GEOGRAPHIC INFORMATION SYSTEMS

Sethi, Raghav

---

## DIPLOMA IN JAPANESE LANGUAGE I

Xu, Runhai

---

## DIPLOMA IN JAPANESE LANGUAGE II

Liu, Huixin  
Liu, Yunzhe

---

## DIPLOMA IN KOREAN LANGUAGE I

Ni, Qingyang  
Zhang, Jingya

---

## CERTIFICATE IN CO-OPERATIVE EDUCATION IN RESEARCH

Orok, Gavin Jeffrey

---

## CERTIFICATE IN EXPERIENTIAL EDUCATION

Solozano, Danicia Maria

---

## CERTIFICATE IN GLOBAL EXPERIENCE

Wang, Hanyu

\* – Distinction

† – Dean's Honours

# Outstanding Achievements

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## **MEDALS AND AWARDS**

### **GOVERNOR GENERAL'S ACADEMIC GOLD MEDAL**

Highest standing in a  
Doctoral program  
Patrick Naylor (Fall 2021)

### **GOVERNOR GENERAL'S ACADEMIC GOLD MEDAL**

Highest standing in a  
Master's program  
Simeng Simone Hu

### **GOVERNOR GENERAL'S ACADEMIC SILVER MEDAL**

Highest standing in an  
undergraduate degree program  
Leni Aniva

### **THE UNIVERSITY OF WATERLOO ALUMNI GOLD MEDAL**

Outstanding academic achievement  
Yunfei Wen

### **J. WESLEY GRAHAM MEDAL IN COMPUTING & INNOVATION**

Joanne McKinley (Spring 2000,  
Fall 2002)

### **MATHEMATICS DOCTORAL PRIZE**

Patrick Naylor (Fall 2021)

### **JESSIE W.H. ZOU MEMORIAL AWARD FOR EXCELLENCE IN UNDERGRADUATE RESEARCH**

Nicholas Baskar Vadivelu

### **SAMUEL ECKLER MEDAL**

Highest standing in Actuarial Science  
Yue Weng

# Waterloo brings home the gold

*Alumni Gold Medal recipients share in the pursuit of discovery, so we created a lasting symbol to honour their achievements.*

Since 1970, Alumni Gold Medals have graced the convocation gowns of our top undergraduate and graduate students. The Royal Canadian Mint produced these medals in the past – but in the true spirit of Waterloo, we’ve decided to make them ourselves.

Carefully crafted on campus in state-of-the-art labs, each medal is created out of nickel superalloy using a 3D printer. The surface is finished by hand to produce a brilliant shine. Through the process of electroplating, the medal is then coated in 24-carat gold. The result is a tribute to Waterloo’s most accomplished graduates, made for each proud recipient by members of the University community.



GO INSIDE THE LAB AT  
[uwaterloo.ca/impact-stories/new-gold-medals](https://uwaterloo.ca/impact-stories/new-gold-medals)

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**CONGRATULATIONS TO THIS YEAR'S ALUMNI GOLD MEDAL RECIPIENTS!  
YOU HAVE MUCH TO CELEBRATE, AND EVEN MORE TO ANTICIPATE  
IN YOUR FUTURE AS UNIVERSITY OF WATERLOO ALUMNI.**

# *Our tradition of regalia*

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## **THE GOWN**

At the University of Waterloo, as at most universities, academic robes are worn only on these special occasions. In the Middle Ages, robes were everyday clothing, and some students were so poor they had nothing else to wear. The black wrapper now called a “gown” served them as jacket, coat and sometimes bedclothes. Stone college buildings of the Middle Ages were unheated and the colourful “hood” could be pulled up to help keep out the cold wind. Today, the officers of the University, faculty members and graduating students all wear garments that are symbolic, not functional.

The scholars and students in long-ago universities were generally monks and other members of church orders. Over time, their vestments came to identify their universities. There are many variations, and the exact hood, gown or hat worn by an individual are determined by the university where they qualified. The array of colours and styles demonstrates the worldwide range of universities from which Waterloo’s faculty have come.

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## **THE HOOD**

Hoods are unique in design and colour to each degree and each university. The academic dress chosen for Waterloo is patterned after that of Oxford, the world’s oldest English-speaking university. The chief officers on the convocation platform – the chancellor (the ceremonial head of the University) and the president (who is also vice-chancellor) – wear gowns of the Oxford cut and trim, each with its own distinctive colour. The gowns worn by recipients of honorary degrees have the same design, as do the black gowns worn by candidates for regular degrees, and the red-and-green gowns which are Waterloo’s regalia for Doctor of Philosophy degrees.

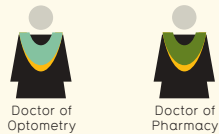
The ritual at convocation reflects the old custom that anyone in a university could wear a gown, but a hood was the symbol for a degree.

# Academic Dress

## BACHELOR'S



## PROFESSIONAL DOCTORATE



## MASTER'S



## DOCTORAL



## HONORARY DOCTORATE

# CONVOGATION



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[#UWaterlooGrad](https://twitter.com/UWaterlooGrad)