uwaterloo.ca » INTERNATIONAL ADMISSIONS BOOK » 2016

WATERLOO

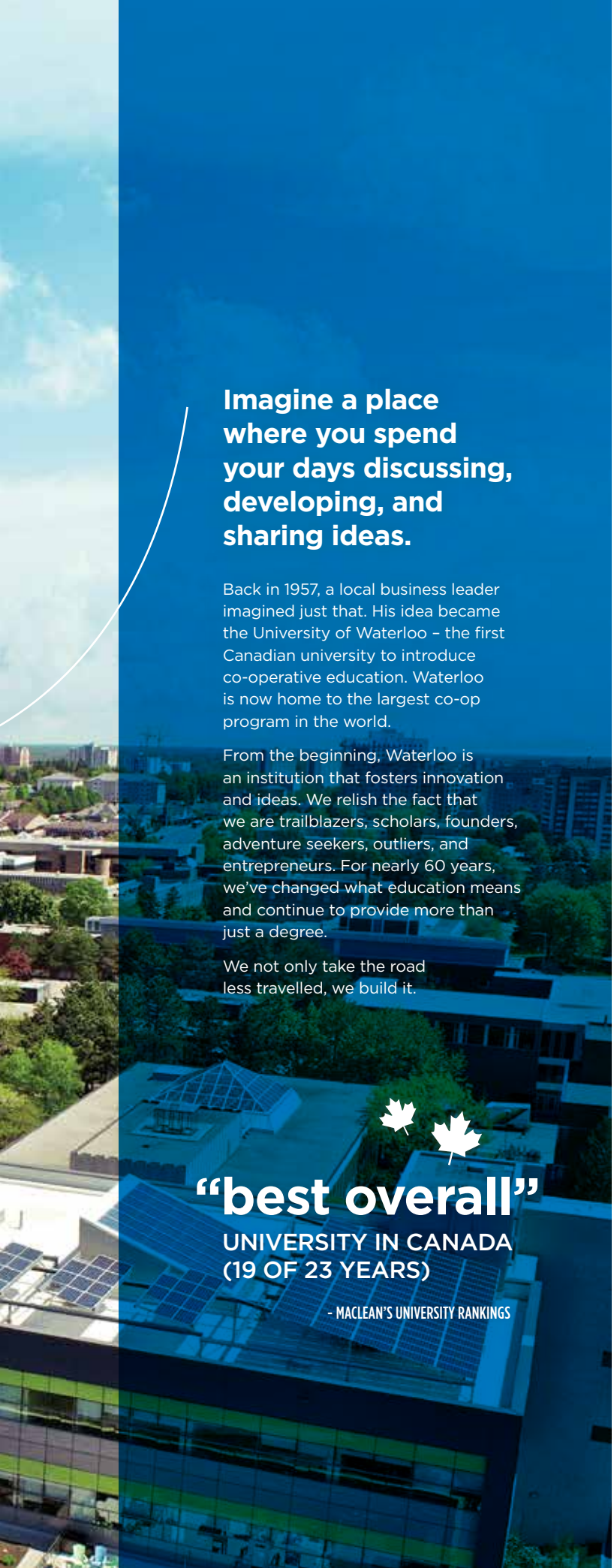
ideas start here®

IMAGINE Education au/in Canada

UNIVERSITY OF WATERLOO

ideas start here®

SCAN THIS PAGE WITH THE LAYAR APP FOR AN INSIDE LOOK AT WHAT'S HAPPENING ON CAMPUS.



Imagine a place where you spend your days discussing, developing, and sharing ideas.

Back in 1957, a local business leader imagined just that. His idea became the University of Waterloo – the first Canadian university to introduce co-operative education. Waterloo is now home to the largest co-op program in the world.

From the beginning, Waterloo is an institution that fosters innovation and ideas. We relish the fact that we are trailblazers, scholars, founders, adventure seekers, outliers, and entrepreneurs. For nearly 60 years, we've changed what education means and continue to provide more than just a degree.

We not only take the road less travelled, we build it.

"best overall"
UNIVERSITY IN CANADA
(19 OF 23 YEARS)

- MACLEAN'S UNIVERSITY RANKINGS

how to use this admissions book

So, you're thinking about university. Use this admissions book as a resource to discover if Waterloo is where you want to be.

If you know what you want to study, spend some time on **pages 16 to 29** where you'll **find our programs listed by faculty as well as admissions information and requirements.**

If you're still unsure about what you want to study, you have options and lots of them! Flip to **pages 8 to 15** to read about **different areas of study** and what some of our current students and alumni are doing. For instance, did you know you can study business in any of our 6 faculties? This way you can study what you love while also developing your business skills.

Interested in gaining job experience between semesters? Read more about our **co-operative education program** on **page 4** and see if co-op is for you.

Our graduates go on to do really great things, such as becoming Oscar winners, CEOs, and researchers. Learn more about **career success** at Waterloo on **page 5**.

We do fun a little differently. To get an idea of what **student life** looks like on campus and in the city of Waterloo, read **pages 3, 6, and 7**.

You can afford Waterloo. There are a number of **scholarships and bursaries** as well as job opportunities through our co-op program that can help you pay for your education. Read more about this on **page 30**.

NOT YOUR ORDINARY BROCHURE

FOLLOW THESE INSTRUCTIONS TO REVEAL HIDDEN CONTENT.

STEP 1
DOWNLOAD THE FREE LAYAR AUGMENTED REALITY APP.

STEP 2
LOOK FOR THE LAYAR ICON AND FILL YOUR SCREEN WITH THE PAGE.

STEP 3
VIEW EXCLUSIVE VIDEOS, PHOTOS, AND MORE.

TRY IT NOW! SCAN THIS PAGE FOR OUR TOP 10 TIPS FOR FUTURE STUDENTS.

canada's most innovative university

benefit from our world-class reputation

» **QS Stars 5+ highest rating for international universities**
– Quacquarelli Symonds World University Rankings 2015

» **A+ reputation among employers**
– The Globe and Mail Canadian University Report 2013

» **Leaders of tomorrow (15 of 23 years)**
– Maclean's University Rankings

> **Something is going on in Waterloo, because the applications we get from Waterloo students are better than those we get from students of any other university.**
>
> – **PAUL GRAHAM**, CO-FOUNDER, Y COMBINATOR (A COMPANY THAT PROVIDES SEED FUNDING FOR STARTUPS)

an ideas town

At the forefront of ideas – that's where you'll find the Region of Waterloo.

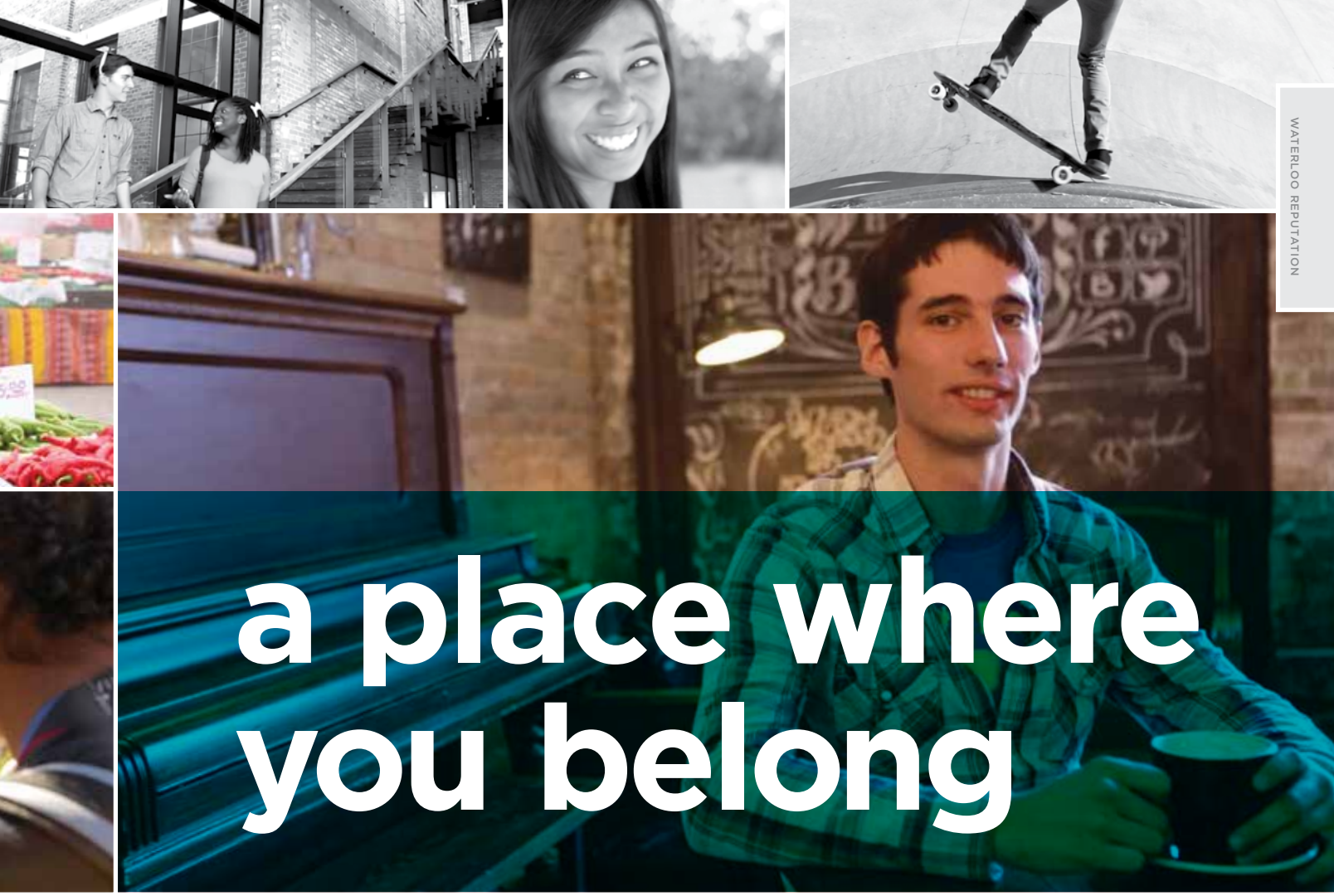
Ranked among the top startup hubs in the world, the Region is focused on the future of technology, innovation, and entrepreneurship. It's home to Velocity – a startup incubator funded in part by the University of Waterloo, that's launched more than 70 companies in 5 years.

You and your ideas will be right at home here.

HeForShe

#HeForShe: empowering women

Waterloo is one of only 10 universities in the world selected to join the United Nations HeForShe IMPACT 10x10x10 initiative, which strives for gender equality and the empowerment of women. A key Waterloo commitment is to increase the number of women studying science, technology, engineering, and math.



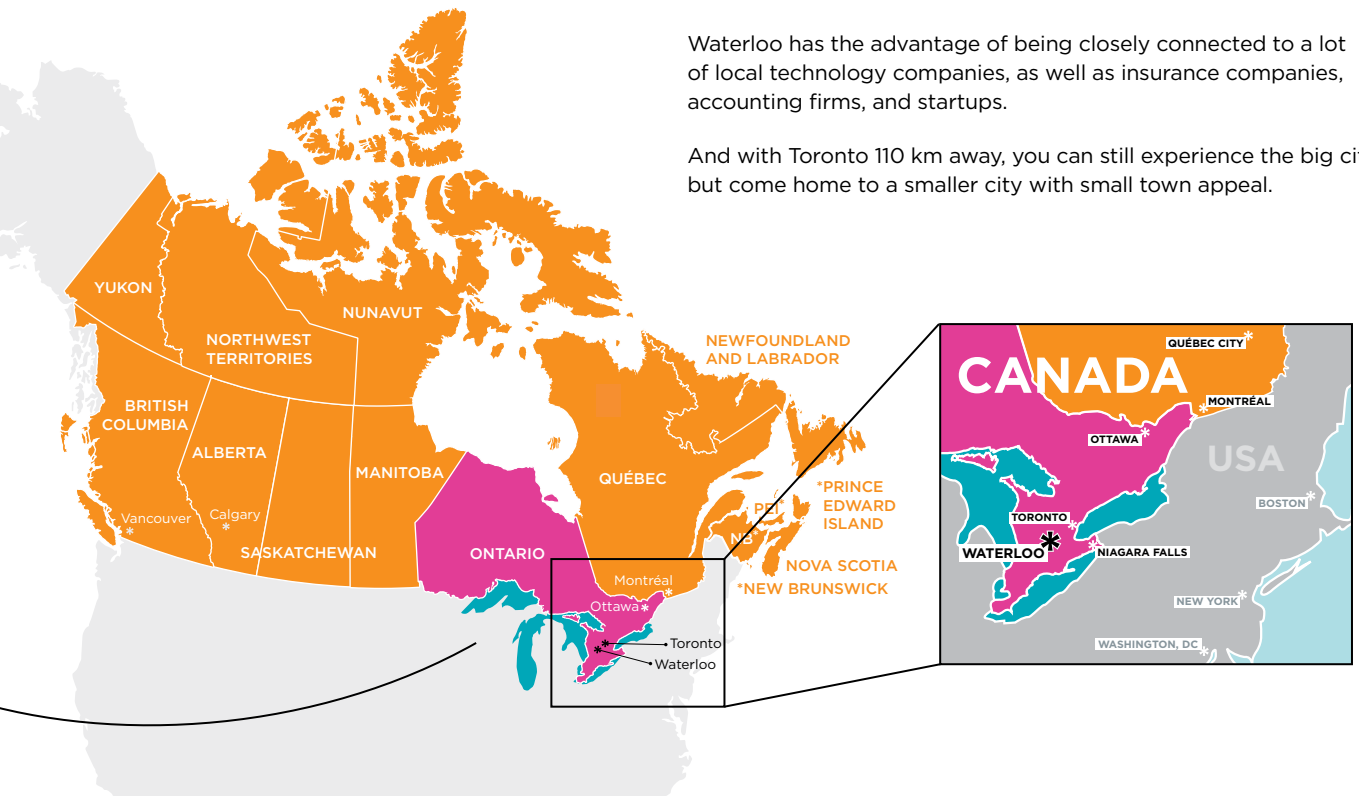
a place where you belong

SCAN THIS PAGE WITH THE LAYAR APP TO WATCH OUR "WATERLOO: IT'S MY HOME" VIDEO.

With 2 universities and 1 college in the area, Waterloo is a hub of activity. Go dancing at a night club, hang out in one of our many cafés in uptown Waterloo, or discover where you can get the best late-night food in the city. There's always something for you to do here.

Waterloo has the advantage of being closely connected to a lot of local technology companies, as well as insurance companies, accounting firms, and startups.

And with Toronto 110 km away, you can still experience the big city but come home to a smaller city with small town appeal.



co-op = your competitive edge

Meet Lauren, a student in the Faculty of Science. This is her on her first co-op work term with Nahanni Steel Products Inc. in Brampton, Ontario.

Have a career goal in mind? Not sure what you want to do after graduation? In either case, Waterloo's co-op program will get your career off to a great start.

As a co-op student, you can:

- try a variety of jobs in a number of different fields to help you discover a career you're passionate about
- work close to home or in another country or province and experience how different organizations operate
- master the job search process – from writing the perfect résumé and preparing for interviews to accepting the right job offer, you'll be ahead in career readiness
- use money earned during your co-op term to help pay for school
- work for employers such as Facebook, Health Canada, and Deloitte
- graduate in a little over 4 years with up to 2 years of paid work experience, a network of contacts, and a résumé full of impressive skills, experiences, and accomplishments
- arrange your own job in your home country with help from our international co-op advisors

SCAN THIS PAGE WITH THE LAYAR APP
TO WATCH A VIDEO ON HOW CO-OP CAN LAUNCH YOUR CAREER.

Alternate between 4-month study and paid work terms

Your co-op schedule depends on your program. These are the 4 most common co-op sequences:

	YEAR 1			YEAR 2			YEAR 3			YEAR 4			YEAR 5	
	F	W	S	F	W	S	F	W	S	F	W	S	F	W
EXAMPLE 1	Study	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study
EXAMPLE 2	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	Study
EXAMPLE 3	Study	Study	Off	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	Study
EXAMPLE 4	Study	Study	Off	Study	**Work**	Study	**Work**	Study	**Work**	Study	**Work**	**Work**	Study	Study

F = fall term (September to December); **W** = winter term (January to April); **S** = spring term (May to August)

SCAN THIS PAGE WITH THE LAYAR APP
TO SEE MORE GRADUATE SUCCESS STORIES.

#1 in career preparation

- THE GLOBE AND MAIL CANADIAN UNIVERSITY REPORT 2013

A Waterloo degree opens doors – to success and to making dreams a reality. Our graduates have gone on to:

- be the first person to use MRI scans to track breast cancer
- create the programming language PHP
- found Engineers Without Borders Canada
- win Academy Awards
- create the online version of the Oxford English Dictionary
- start up a financial services software company and sell it for $1.76 billion
- share a Nobel Peace Prize for research on climate change
- found a charitable organization to help children with disabilities in developing countries realize their potential
- help launch the Perimeter Institute, an international centre for theoretical physics research
- invent a molecule that may block the growth of cancer tumours
- start a charitable organization that preserves wilderness for future generations
- study at Oxford as a Rhodes Scholar
- design a gesture-controlled armband that translates electrical activity in muscles to wirelessly control electronic devices
- break the Kickstarter record for fastest project ever to surpass $1 million (49 minutes)

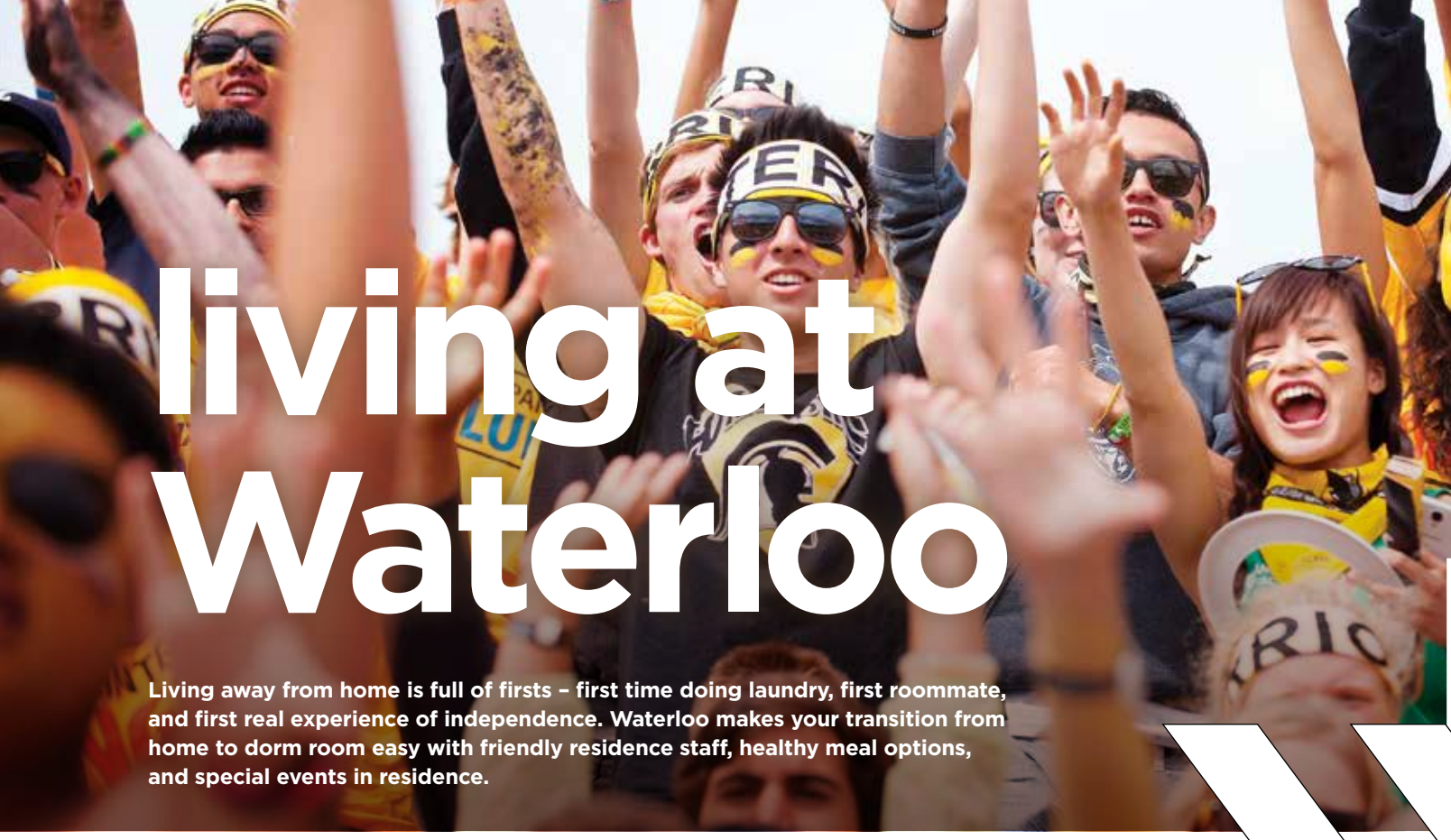
97%
OF CO-OP STUDENTS FOUND JOBS
IN 2013/14

$15,730
AVERAGE EARNINGS PER WORK TERM

Canada's top COMPREHENSIVE RESEARCH UNIVERSITY
FOR THE PAST 7 YEARS
- RESEARCH INFOSOURCE

Waterloo – a research powerhouse and a great place to continue your studies

With more than 5,000 Master's and PhD students, Waterloo is one of the most research-intensive universities in Canada. We're the place industries, institutions, and governments turn to for answers. We can help you prepare for specialized graduate and professional programs at Waterloo or other leading universities around the world.



living at Waterloo

Living away from home is full of firsts – first time doing laundry, first roommate, and first real experience of independence. Waterloo makes your transition from home to dorm room easy with friendly residence staff, healthy meal options, and special events in residence.

Find your fit in one of our 9 first-year on-campus residences:

- Waterloo residences: Columbia Lake Village, Mackenzie King Village, Ron Eydt Village, UW Place, Village 1
- University College residences: smaller communities that offer residence and academic life – Conrad Grebel, Renison, St. Jerome's, and St. Paul's
- Single and shared rooms as well as suite-style (apartment) living

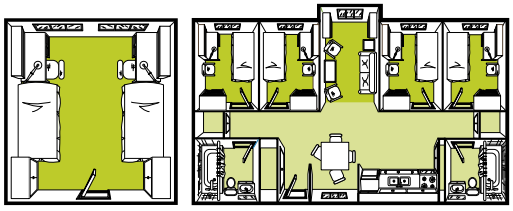
If you choose to live off campus, our Off-Campus Housing staff can support you in finding a place to live.

Eating on campus

When you're hungry, our 28 on-campus eateries offer lots of healthy choices, including vegetarian, vegan, and halal options. Visit **uwaterloo.ca/food-services** to check out meal plans, the weekly menu, and the many different food outlets we have on campus.

Room layouts

Below are examples of a double room and suite-style living. Find the residence and room that's right for you: **uwaterloo.ca/findoutmore/housing**.



the university for ideas people

Waterloo knows great ideas can strike anytime. In fact, it's happened so often on campus that we've transformed into an entrepreneurship ecosystem, complete with over 30 support and for-credit programs. Needless to say, we believe in your ideas – no matter how big or small.

Startup support and programs

VELOCITY
velocity.uwaterloo.ca
- Find the space, resources, and mentorship you need to turn your idea into a startup at one of Velocity's many facilities and programs: Velocity Residence, Velocity Science, Velocity Garage, Velocity Foundry, and Velocity Alpha.

ST. PAUL'S GREENHOUSE
uwaterloo.ca/stpauls/greenhouse
- Bring your passion for social innovation and social change to this on-campus live-in mentorship program in second year.

SEDRA STUDENT DESIGN CENTRE
uwaterloo.ca/sedra-student-design-centre
- Over 20,000 square feet of space dedicated to design teams and student projects.

CONRAD ENTERPRISE CO-OP
uwaterloo.ca/conrad-business-entrepreneurship-technology/undergraduate-students/enterprise-co-op
- Start your own business during a co-op work term.

SCAN THIS PAGE WITH THE LAYAR APP TO SEE INSIDE RESIDENCE ROOMS AND VIEW TODAY'S RESIDENCE MENU.

GUARANTEED RESIDENCE
FOR FIRST-YEAR STUDENTS

The International Student Experience team is your connection to the University of Waterloo

uwaterloo.ca/international-students

Our friendly staff are here to help you every step of the way as you transition into a new life in Canada, and become a part of the University of Waterloo community.

Student services

uwaterloo.ca/findoutmore/student-life/student-services

Navigating your way through university can be an eye-opening experience, but we help make the journey a smooth one by offering you the services and resources needed to be successful and have fun:

- Academic advisors
- Tutors in residence
- Study skills workshops
- Counselling Services
- Centre for Career Action
- Health Services
- AccessAbility Services
- Federation of Students
- Student Success Office

SCAN THIS PAGE WITH THE LAYAR APP TO LEARN ABOUT LIFE ON CAMPUS AND HOW WE'LL SUPPORT YOU.

getting involved at Waterloo

Classes are only one part of your university experience. What you do, who you meet, and where you hang out are also important. There's no need to worry about how you can get involved, Waterloo has something for everyone!

Clubs

Whether you're trying to survive Humans vs. Zombies Week, catching the snitch at Quidditch practice, or sipping on a cup of oolong with members of the Tea Culture Club, there's a club on campus for you.

Choose from our many academic, charitable, social, religious, political, sports, and cultural clubs. For a complete list of clubs, visit **feds.ca**. For a complete list of sports clubs, visit **gowarriorsgo.ca**.

Sports

WARRIOR RECREATION

Fun fact! Waterloo has one of the largest campus recreation programs in Canada.

- Fitness – 2,500 classes each year, including personal training, conditioning classes, yoga, Zumba, cycling, bootcamps, and more
- Intramural sports – basketball, soccer, squash, ultimate, volleyball, and more
- Instructional courses – dance, self-defence, martial arts, first aid, skating, swimming, squash, and more
- Do your own thing – conditioning rooms, fitness studios, ice rink, bouldering wall, 8 squash courts, 5 gyms, 7 playing fields, swimming pool, and golf simulator

VARSITY TEAMS
gowarriorsgo.ca

Co-ed Male Female

- Badminton
- Baseball
- Basketball
- Cheerleading
- Cross-Country
- Curling
- Field Hockey
- Figure Skating
- Football
- Golf
- Ice Hockey
- Nordic Skiing
- Rugby
- Soccer
- Squash
- Swimming
- Tennis
- Track and Field
- Volleyball

Student government

Develop your leadership skills with the Federation of Students or in your faculty, program, or residence.

International opportunities

- **Exchanges –** choose from over 140 exchanges in 36 countries such as the UK, France, and Singapore
- **Programs –** take a course with overseas fieldwork or learn another language – we offer over 100 language courses, making this one of the largest course offerings of its kind in Canada
- **Work experience –** over 1,700 students find a co-op work term outside Canada every year

arts, communication, and social sciences

You're eager to explore human nature and understand the world we live in. To look at civilization from the past, from another culture, and from a diverse set of viewpoints. At Waterloo, you'll learn how different perspectives and critical thinking can bring about change.

PROGRAMS

Program details: pages 16-23

- » Anthropology
- » Architecture
- » Classical Studies
- » Economics
- » English
  - Literature*
  - Literature and Rhetoric*
  - Rhetoric, Media, and Professional Communication*
- » Fine Arts
  - Studio Practice*
  - Visual Culture
- » Geography and Environmental Management
- » Global Business and Digital Arts
- » History
- » Honours Arts**
- » Honours Arts and Business**
- » International Development
- » Knowledge Integration
- » Legal Studies
- » Medieval Studies
- » Music
- » Peace and Conflict Studies
- » Philosophy
- » Planning
- » Political Science
- » Psychology
- » Public Health
- » Recreation and Leisure Studies
- » Religious Studies
- » Sexuality, Marriage, and Family Studies
- » Social Development Studies
- » Social Work
- » Sociology
- » Speech Communication
- » Theatre and Performance
- » Therapeutic Recreation
- » Tourism Development
- » Women's Studies

* An optional focus that you can add to the program listed above it

** 23 majors available for you to choose from

Discovering her place in the world ... and online

When Natalie was in her final year of university, she travelled to Europe hoping to discover her passion. What started as personal musings on travel, inspiration, and finding her purpose abroad quickly turned into one of the world's top blogs for women entrepreneurs.

Today, this Waterloo Arts graduate is an Emmy Award-winning media producer and best-selling author who's frequently cited by top media outlets like the Wall Street Journal.

At Waterloo, we like to inspire.

Creating a culture of conversation

Assad didn't want just any degree. He wanted a degree that would set him apart. That's why he chose Science and Business at Waterloo, a one-of-a-kind opportunity to learn and think about the world of business while also becoming versed in the language of science. The program's integrative nature, emphasizing teamwork, collaboration, presentation skills, and leadership, inspired him to host TEDxUW in 2014.

The event provided students with the opportunity to build connections and share their exciting ideas. Assad hopes TEDxUW sparked the same fire in students as the Science and Business program did in him.

At Waterloo, we believe it all starts with an idea.

business, accounting, and finance

You have a natural dollars and cents approach to problem-solving. A fascination with the way business and money affect knowledge, people, and the world. Ask around. Employers value the combination of business savvy and technical skills that Waterloo grads bring to today's workforce.

WATERLOO'S STARTUPS HAVE RECEIVED MILLIONS
IN INVESTMENT FUNDING OVER THE PERIOD 2009 TO 2015. BE PART OF THIS STARTUP COMMUNITY

PROGRAMS

Program details: pages 16-23

- Accounting and Financial Management
- Actuarial Science
  - Finance*
- Applied Mathematics
  - Economics*
- Biotechnology/Chartered Professional Accountancy
- Biotechnology/Economics
- Business Administration (Laurier) and Computer Science (Waterloo) Double Degree
- Business Administration (Laurier) and Mathematics (Waterloo) Double Degree
- Computational Mathematics
- Computer Science
  - Business*
- Computing and Financial Management
- Economics
- Environment and Business
- Global Business and Digital Arts
- Honours Arts and Business**
- Information Technology Management
- Mathematical Economics
- Mathematical Finance
- Mathematical Optimization
- Mathematics/Business Administration
- Mathematics/Chartered Professional Accountancy
- Mathematics/Financial Analysis and Risk Management
- Recreation and Sport Business
- Science and Business
- Statistics

* An optional focus that you can add to the program listed above it

** 23 majors available to choose from

TOP 2 IN CANADA
AND 24TH IN THE WORLD FOR COMPUTER SCIENCE
- QS WORLD UNIVERSITIES RANKING 2015

Taking on the world of entrepreneurship ... one company at a time

Who says you can't start a company at an early age? Just ask Michal, who successfully launched 2 businesses before he was 20.

Michal co-founded uIntuition, a platform for connecting talented students with customers in areas of design, web, photography, video, academics, and performance. uIntuition helps students earn money doing what they love and provides businesses with professional services from top talent.

He also created GreenPixels Productions – a solo operation through which he produces movie special effects and motion graphics.

While Michal believes motivation and ambition are essential to starting a business, it was Waterloo's Engineering program that gave him the practical experience, education, and resources needed to succeed in the world of entrepreneurship.

At Waterloo, we believe great ideas can happen at any age.

engineering, architecture, and design

You like to take things apart. Figure out how they work. Create new ideas and spaces in innovative and unconventional ways. Jump start your career along with your curiosity – because Waterloo's experience-based approach means you'll see the world in a whole new way.

PROGRAMS

Program details: pages 16-23

» Applied Mathematics
» Architecture
» Biomedical Engineering
» Chemical Engineering
» Civil Engineering
» Computer Engineering
» Computer Science
» Electrical Engineering
» Environmental Engineering
» Geological Engineering
» Global Business and Digital Arts
» Knowledge Integration
» Management Engineering
» Mechanical Engineering
» Mechatronics Engineering
» Nanotechnology Engineering
» Planning
» Pure Mathematics
» Software Engineering
» Systems Design Engineering

environment and sustainability

HOME TO ONE OF THE
TOP 50 GEOGRAPHY PROGRAMS IN THE WORLD
- QS WORLD UNIVERSITIES RANKING 2015

Bringing cotton from the fields of India to the cafés of Waterloo

Sometimes it's not always clear just how far your influence can reach. Environment and Resource Studies graduates Carly and Dana extended their skills, savvy, and passion for social justice halfway around the world.

As part of a fourth-year research course, the pair worked with not-for-profit Khadi Organics to help Indian villagers market their sustainable cotton products at a fair price.

With the support of their professors and fellow students, they launched a website, rolled out a social media campaign, and located vendors in the City of Waterloo to carry scarves, napkins, and towels.

At Waterloo, we understand the value of community.

For you, sustainability isn't a buzzword. It's your hope for the future. Environmental responsibility has inspired Waterloo programs for more than 40 years, including one of the first environment faculties in Canada. Explore a range of possibilities for creating a better and greener world.

PROGRAMS

Program details: pages 16-23

- Applied Mathematics
- Computational Mathematics
- Environment and Business
- Environment and Resource Studies
- Environmental Engineering
- Environmental Science
  - Ecology*
  - Geoscience*
- Geography and Aviation
- Geography and Environmental Management
- Geological Engineering
- Geomatics
- International Development
- Knowledge Integration
- Physical Sciences
  - Earth Sciences**
- Planning
- Recreation and Leisure Studies
- Science and Business
  - Earth Sciences*
  - Environmental Sciences*
- Tourism Development

* An optional focus that you can add to the program listed above it

** Program listed on your diploma when you graduate

health and helping professions

Your #1 goal is to make a difference in people's lives. You're fascinated by the mysterious connections between health and disease. Use your compassion and abilities to benefit both individuals and entire populations.

PROGRAMS

Program details: pages 16-23

» **Computational Mathematics**
» **Computer Science**
- Bioinformatics*
- Health Informatics*
» **Fine Arts**
- Studio Practice: Teaching Preparation*
» **French**
- Teaching*
» **Health Studies**
- Gerontology*
- Health Informatics*
- Health Research*
- Pre-Health Professions*
» **Honours Science**
» **International Development**
» **Kinesiology**
- Ergonomics*
- Human Nutrition*
- Pre-Health Professions*
» **Knowledge Integration**
» **Legal Studies**
» **Life Sciences**
- Biochemistry**
- Biology**
- Biomedical Sciences**
- Life Physics**
- Psychology**
» **Mathematics**
- Teaching*
» **Optometry**
» **Peace and Conflict Studies**
» **Pharmacy**
» **Physical Sciences**
- Medicinal Chemistry**
» **Psychology**
» **Public Health**
» **Pure Mathematics**
- Teaching*
» **Recreation and Leisure Studies**
» **Recreation and Sport Business**
» **Science and Business**
» **Sexuality, Marriage, and Family Studies**
» **Social Development Studies**
» **Social Work**
» **Sociology**
» **Statistics for Health**
» **Therapeutic Recreation**
» **Women's Studies**

* An optional focus that you can add to the program listed above it

** Program listed on your diploma when you graduate

When knowing isn't enough

What would you do if you were suddenly alone in a room with 3 women in labour – and no one was around to help? Christina found herself in this predicament while volunteering in a Ugandan health clinic. Setting her fears aside, the Health Studies student grabbed a pair of gloves and helped each mother.

Shortages of medical staff, supplies, and facilities mean that Ugandan women often go without adequate care during childbirth. Upon returning to Canada, Christina put her education and experience to work to improve medical treatment for Ugandan mothers.

With the help of St. Paul's GreenHouse program, Christina co-founded FullSoul Canada, a social enterprise that sells luxury apparel with profits providing medical kits to Ugandan clinics.

At Waterloo, we believe that you have the power to bring about change.

FIRST UNIVERSITY IN THE WORLD TO CREATE A DEPARTMENT TO STUDY THE SCIENCE OF HUMAN MOVEMENT – **KINESIOLOGY**

Your degree.
Your dream. Your world.

At Waterloo, your learning can extend beyond campus to the Great Wall of China, the top of the Eiffel Tower, or in Rasha's case, the busy streets of Vietnam. This International Development student completed an 8-month placement in Hanoi, Vietnam at The Center for Development of Community Initiative and Environment.

As part of the Faculty of Environment's International Development program, Rasha's guaranteed overseas placement provided her with the opportunity to not only help an organization make Vietnam more sustainable, but also to develop as a future leader.

At Waterloo, you'll travel far beyond the lecture hall.

GAIN OVERSEAS WORK EXPERIENCE

JUST LIKE THE 1,700+ WATERLOO CO-OP STUDENTS WHO WORK ABROAD EVERY YEAR

international studies and languages

Your dream is to explore the global village. In books. In person. In another language. To experience the places and cultures you see in the news. Waterloo can take you behind the headlines.

PROGRAMS

Program details: pages 16-23

- » **French**
  - Teaching*
- » **German**
- » **Global Business and Digital Arts**
- » **History**
  - Global Interactions*
  - International Relations*
- » **International Development**
- » **Peace and Conflict Studies**
- » **Political Science**
  - Global Governance*
  - International Relations*
- » **Spanish**
- » **Tourism Development**

*An optional focus that you can add to the program listed above it

mathematics, computer science, and technology

From problem sets to Ruby on Rails, you love working with numbers. Surround yourself with the world's top minds in mathematics and computer science.

PROGRAMS

Program details: pages 16-23

- » **Actuarial Science**
  - Finance*
- » **Applied Mathematics**
  - Scientific Computation*
- » **Business Administration (Laurier) and Computer Science (Waterloo) Double Degree**
- » **Business Administration (Laurier) and Mathematics (Waterloo) Double Degree**
- » **Combinatorics and Optimization**
- » **Computational Mathematics**
- » **Computer Engineering**
- » **Computer Science**
  - Bioinformatics*
  - Business*
  - Digital Hardware*
  - Health Informatics*
  - Software Engineering*
- » **Computing and Financial Management**
- » **Electrical Engineering**
- » **Geomatics**
- » **Global Business and Digital Arts**
- » **Health Studies**
  - Health Informatics*
- » **Information Technology Management**
- » **Management Engineering**
  - Software Engineering and Information Technology*
- » **Mathematical Economics**
- » **Mathematical Finance**
- » **Mathematical Optimization**
- » **Mathematical Physics**
- » **Mathematics**
  - Teaching*
- » **Mathematics/Business Administration**
- » **Mathematics/Chartered Professional Accountancy**
- » **Mathematics/Financial Analysis and Risk Management**
- » **Mechatronics Engineering**
- » **Nanotechnology Engineering**
- » **Pure Mathematics**
  - Teaching*
- » **Software Engineering**
- » **Statistics**
- » **Statistics for Health**

* An optional focus that you can add to the program listed above it

Bringing friends closer through mobile technology

Imagine taking a picture of your friends and discovering an awkward amount of space between them. Now imagine being able to delete that space without compromising the picture's quality.

Computer Science major Rudi and Software Engineering student Shida developed a smart resizing app that allows the user to edit out unnecessary spaces in photos – an idea that helped them win the Nokia Imaging Hackathon in Lund, Sweden.

At Waterloo, we like to make things better.

WATERLOO HAS WON

MORE TOP 5 TITLES IN THE PRESTIGIOUS PUTNAM COMPETITION THAN ANY OTHER CANADIAN UNIVERSITY. WILL YOU BE ON THE NEXT MATH TEAM?

sciences: physical, life, and health

You like to investigate the complexity of cell communication or gaze outward at our expanding universe. Waterloo provides all the elements for frontier-shattering discoveries.

PROGRAMS

Program details: pages 16-23

- **Biotechnology/Chartered Professional Accountancy**
- **Biotechnology/Economics**
- **Environmental Science**
  - Ecology*
  - Geoscience*
- **Health Studies**
  - Gerontology*
  - Health Informatics*
  - Health Research*
  - Pre-Health Professions*
- **Honours Science**
- **Kinesiology**
  - Ergonomics*
  - Human Nutrition*
  - Pre-Health Professions*
- **Knowledge Integration**
- **Life Sciences**
  - Biochemistry**
  - Biology**
  - Biomedical Sciences**
  - Life Physics**
  - Psychology**
- **Optometry**
- **Pharmacy**
- **Physical Sciences**
  - Chemistry**
  - Earth Sciences**
  - Materials and Nanosciences**
  - Mathematical Physics**
  - Medicinal Chemistry**
  - Physics**
  - Physics and Astronomy**
- **Psychology**
- **Public Health**
- **Science and Aviation**
- **Science and Business**
- **Statistics for Health**
- **Therapeutic Recreation**

* An optional focus that you can add to the program listed above it

** Program listed on your diploma when you graduate

Seeing is believing when it comes to new technology and diabetes

Have you ever had an idea that made you so excited you had to do something about it? For Harry, you could say his love for new ideas is what drove him to be a leading force in the creation of Velocity Science, a program that helps science startups refine their ideas through mentorship, pitch preparations, and peer-to-peer support.

Today, Harry is the co-founder of Medella Health, a startup supported by Velocity Science that is developing smart contact lenses that non-invasively measure blood glucose levels in real time. For a man with a vision and a head full of ideas, Harry is certainly hitting his stride and making an impact.

At Waterloo, we never stop moving.

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FACULTY OF APPLIED HEALTH SCIENCES

HEALTH STUDIES (E, Bachelor of Science) Co-op available

Prepare for professional health programs such as medicine, pharmacy, and nursing. Learn how to prevent disease by studying the factors that determine health and illness.

Sample courses: Psychological Determinants of Health; Development, Aging, and Health; Environmental Toxicology and Public Health

Specializations: Gerontology, Health Informatics, Health Research, Pre-Health Professions

Career possibilities: Health professional (medical doctor, nurse, epidemiologist, occupational therapist, midwife, genetic counsellor), research coordinator, health informatics consultant

KINESIOLOGY (E, Bachelor of Science) Co-op available

Prepare for professional health programs such as medicine, physiotherapy, and chiropractic. Study the multidisciplinary science of human movement and learn how to prevent, assess, and treat movement-related illness and injury.

Sample courses: Human Anatomy: Limbs and Trunk; Clinical Neurophysiology: Fundamentals for Rehabilitation of Human Movement; Musculoskeletal Injuries in Work and Sport

Specializations: Ergonomics, Human Nutrition, Pre-Health Professions

Possible professional designation: Prepared to register as a kinesiologist (Ontario)

Career possibilities: Health professional (medical doctor, physical therapist, occupational therapist, athletic therapist, kinesiologist, chiropractor), ergonomist, fitness consultant/high performance trainer

PUBLIC HEALTH (E, Bachelor of Public Health) Co-op available

Learn about the many determinants, biological and otherwise, that influence the health of individuals and groups, and how to influence these factors to improve the health and well-being of others.

Sample courses: Social Determinants of Health, Global Health, Community Learning Project

Career possibilities: Community relations officer, public health planner, policy developer

RECREATION AND LEISURE STUDIES (E, M, Bachelor of Arts) Co-op available

Explore leisure and its relationship to individual and community well-being. Learn how to plan, deliver, and manage recreation services that facilitate meaningful engagement. Choose from 4 majors: Recreation and Leisure Studies, Recreation and Sport Business, Therapeutic Recreation, and Tourism Development.

Sample courses: Program Management and Evaluation; Play, Creativity, and Child Development; Diversity and Leisure

Career possibilities: Manager of community services, program and support services manager, co-ordinator of student leadership

W – RECREATION AND SPORT BUSINESS (M, Bachelor of Arts) Co-op available

Combine your expertise in recreation and sport with transferable business skills in marketing, human resources, communications, management, and finance. Prepare for a career in commercial, not-for-profit, and public recreation and sport.

Sample courses: Principles of High Performance Organizations in Recreation and Sport, Leisure and Community, Mobilizing Resources for Recreation and Sport Delivery

Career possibilities: Community events manager, marketing coordinator, manager of player development and recruitment

THERAPEUTIC RECREATION (M, Bachelor of Arts) Co-op available

Enhance the physical, mental, and social health and well-being of individuals and communities through research, treatment, education, activism, and recreation and leisure services. Learn to create meaningful experiences with participants in clinical, residential, and community settings.

Sample courses: Foundations of Therapeutic Recreation Practice, Leisure and Well-being, Therapeutic Recreation: Physical Disabilities

Possible professional designation: Eligible to apply for registration with Therapeutic Recreation Ontario, and certification with the National Council for Therapeutic Recreation Certification (U.S.)

Career possibilities: Recreation therapist, elder life specialist, health professional (occupational therapist)

TOURISM DEVELOPMENT (M, Bachelor of Arts) Co-op available

Gain the knowledge, skills, and values to use tourism to enhance well-being and improve communities. Prepare for a career in one of the world's largest industries by learning how to plan, manage, and fund tourism experiences and events.

Sample courses: Outdoor Recreation Resources Management, Ecotourism and Communities (field course), Event Management

Career possibilities: Festival and events co-ordinator, policy researcher, director of parks and recreation

FACULTY OF ARTS

ANTHROPOLOGY (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Discover what it means to be human through the examination of fossils and bones, lab work, and field experiences in the Mediterranean, the Arctic, or Africa. You'll draw upon contemporary cultural issues such as violence and media, as well as study evolution to discover more about humans and what makes us tick.

Sample courses: Biological Anthropology, Skeletal Biology and Forensics, Archaeological Anthropology

Career possibilities: Archivist, curator of natural property, heritage planner

SCAN THIS PAGE WITH THE LAYAR APP TO REQUEST A BROCHURE ABOUT YOUR PROGRAM OF INTEREST.

E = Entry-level program – you apply directly through OUAC. See page 31 for details.
M = Major – you apply through an entry-level program (E) and select your major after first year.
W = One-of-a-kind program in Canada.

CLASSICAL STUDIES (M, Bachelor of Arts)
Co-op available if you are enrolled in Honours Arts and Business

Join Plato and Aristotle in the Ancient world. Gain a deep understanding of history, culture, literature, religion, art, philosophy, and society. Benefit from field experience in the Mediterranean, mainly in Greece and Italy. Language courses are optional.

Sample courses: Greek Art and Architecture, Astrology and Magic, Roman History

Career possibilities: Project manager, reference librarian, academic manager

THEATRE AND PERFORMANCE (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Write theatre reviews, study stage direction, and think about reinventing theatre for today. Focus your studies in acting, directing, technical, or theory in one of the most performance-intensive drama programs available in Canada.

Sample courses: Stage Management, Stage Combat, Theatre and the New Media

Career possibilities: Set designer, actor, floor director, stage manager, general manager

ECONOMICS (M, Bachelor of Arts)
Co-op available if you are enrolled in Honours Arts or Honours Arts and Business

Learn how wealth is produced, distributed, and consumed and how it shapes society, politics, and culture. Courses cover finance, public policy, and international economics.

Sample courses: Economics and Sports, Business Finance, Marketing and Consumer Economics

Career possibilities: Financial planner, manager of marketing research, financial analyst, economist, manager of international finance

ENGLISH (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts or Honours Arts and Business

Examine English literature, language, and new media while developing your ability to professionally communicate and persuade. Choose one of 3 paths: Literature; Rhetoric, Media, and Professional Communication; or Literature and Rhetoric.

Sample courses: Creative Writing, Writing for the Media, Global Shakespeare

Specializations: Digital Media Studies, Global Literatures, or Technical Writing

Career possibilities: Communications manager, media relations specialist, technical writer, publisher, social media strategist

FINE ARTS (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Develop a critical understanding of art through painting, drawing, sculpture, printmaking, computer imaging, art history, and film studies. Add the Teaching Specialization to earn a Bachelor of Education. Choose Visual Culture, or Studio Practice as your major.

Sample courses: History of Film and Visual Media, Observational Drawing, Digital Imaging

Possible professional designation: Teaching Specialization

Career possibilities: 3D visual effects artist, illustrator, web designer, curator, interior designer, art therapist

FRENCH (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Obtain valuable language skills for careers in government or business. You can include a year of study in Québec or France, or choose the French Teaching Specialization to add a Bachelor of Education from Nipissing University.

Sample courses: Introduction to Translation, Business French, Children's Literature in French

Possible professional designation: Teaching Specialization

Career possibilities: Director of international sales, immigration officer, insolvency administrator, translator, teacher

GERMAN (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Combine German language, communications, and cultural studies. Develop valuable skills for careers in education, business, and government. Enhance your experience by studying in Germany.

Sample courses: German through Comics, German for Professional Purposes, German Filmmakers in Hollywood

Career possibilities: Editor and communications manager, business analyst, sales manager

HISTORY (M, Bachelor of Arts)
Co-op available if you are enrolled in Honours Arts and Business

Go back in time and see for yourself that history is more than just memorizing facts. You'll develop analytical skills and a knack for seeing patterns from the past that can influence the future. Focus on Canadian, American, European, or international history.

Sample courses: History of Rock 'n Roll, A Global History of Empires, Digital History

Specializations: Global Interactions; Revolution, War, and Upheaval; Applied History; or International Relations

Career possibilities: Government affairs manager, executive researcher, lawyer, director of government relations, executive researcher

HONOURS ARTS (E, Bachelor of Arts)

With 23 majors, Honours Arts provides choice and flexibility. Explore a variety of Arts subjects or select a major and immerse yourself in the humanities, social sciences, fine and performing arts, and languages and cultures. Co-op is available in some majors. Refer to your specific major of interest (**M**) for course listings and career possibilities.

W – HONOURS ARTS AND BUSINESS (E, Bachelor of Arts) Co-op available

Combine one of 23 Honours Arts majors with business-related studies. Choose co-op and be a part of the world's largest co-op program. Refer to your specific major of interest (**M**) for course listings and career possibilities.

Possible professional designation: Work towards project management certification

LEGAL STUDIES (M, Bachelor of Arts)
Co-op available if you are enrolled in Honours Arts and Business

Understand the origins and impact of legal systems from the viewpoint of political science, history, sociology, philosophy, and peace and conflict studies. You'll develop an appreciation of the role of law in society and explore it as a career option.

Sample courses: Criminology, Human Rights, Canadian Constitutional Law

Career possibilities: Legal assistant, records clerk, executive researcher, probation and parole officer, lawyer

MEDIEVAL STUDIES (M, Bachelor of Arts)
Co-op available if you are enrolled in Honours Arts and Business

Gain knowledge of the Middle Ages, which is vital to understanding modern civilization. Areas of study include history, Latin, modern European languages, fine arts, philosophy, religious studies, and classical studies.

Sample courses: Medieval Society, Great Works: Ancient and Medieval, Old English

Career possibilities: Professor, librarian, case worker, teacher

MUSIC (M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Understand music's importance in today's world through theory, composition, performance, and history. Combine your passion for music with other interests by taking courses that address the vital intersection of music and technology, film, global culture, and psychology.

Sample courses: Psychology of Music, World Music, Introduction to Jazz, Soundtracks: Music in Film

Career possibilities: Teacher, performer, associate pastor of music, music store owner, recording studio owner

PEACE AND CONFLICT STUDIES
(M, Bachelor of Arts) Co-op available if you are enrolled in Honours Arts and Business

Develop diverse approaches to understanding conflict and promoting peace through Canada's first peace studies program. Discover how to transform conflict's violent potential into a creative force for positive change. Gain experience through an internship locally or abroad.

Sample courses: Human Rights, Peace, and Business; Conflict Resolution; Restorative Justice; Gender in War and Peace

Career possibilities: Community development officer, international development specialist, social services worker, policy advisor, mediation consultant, lawyer

PHILOSOPHY **(M, Bachelor of Arts)**
Co-op available if you are enrolled in Honours Arts and Business

Study topics ranging from ancient texts to emerging issues in science and technology. Learn to analyze other people's arguments and improve your own. The critical thinking skills you'll develop are in demand in public policy, industry, and beyond.

Sample courses: Theories of Knowledge, Probability and Decision Making, Philosophy of the Mind

Career possibilities: Lawyer, public policy analyst, professor, corporate archivist

POLITICAL SCIENCE **(M, Bachelor of Arts)**
Co-op available if you are enrolled in Honours Arts or Honours Arts and Business

Explore political power, global politics and governance, citizens and their relationship to governments, and political theory. Your newfound knowledge of politics and its many systems and cultures will make a difference to employers looking for critical thinkers and creative problem solvers.

Sample courses: International Business and Development, Politics and Business, Global Environmental Governance

Specializations: Politics and Business, Global Governance, Public Policy and Administration, International Relations

Career possibilities: Assistant deputy minister, director of global programs, project manager, senior consultant

PSYCHOLOGY **(M, Bachelor of Arts)** Co-op
available if you are enrolled in Honours Arts or Honours Arts and Business | Also available as a Bachelor of Science in the Faculty of Science

Explore the intricacies of the brain in one of North America's top psychology departments. Study a range of psychology disciplines: neuroscience, cognition, clinical, developmental, industrial/organizational, and social.

Sample courses: Learning Disabilities, Basic Research Methods, Human Neuropsychology

Career possibilities: Mental health worker, research and development manager, assistant crown attorney, human resources manager

RELIGIOUS STUDIES **(M, Bachelor of Arts)**
Co-op available if you are enrolled in Honours Arts and Business

Explore the religious dimensions of human experience to gain an understanding of yourself and others. Discover the world's great religions through courses in Western and Eastern religions, the history of Christianity, Biblical studies, theology, ethics, sociology, and religion and the arts.

Sample courses: Sacred Places, Religion in Popular Film, Women in Buddhism: A Global Perspective

Career possibilities: Clinical therapist, interfaith chaplain, international development agency director

SEXUALITY, MARRIAGE, AND FAMILY STUDIES **(M, Bachelor of Arts)** Co-op
available if you are enrolled in Honours Arts and Business

Consider the many ways in which sexuality and relationships affect culture and societal attitudes. Choose from courses in psychology, history, sociology, English, and women's studies and learn to promote social justice as a responsible citizen.

Sample courses: Human Sexuality in Relationships, Practicum and Professional Ethics, Communication and Counselling Skills

Career possibilities: Sexual health educator, youth support worker, social worker, couple and family therapist

SOCIAL DEVELOPMENT STUDIES **(E, M, Bachelor of Arts)** Co-op available if you
are enrolled in Honours Arts and Business

Combine social work, sociology, psychology, and unique social development studies courses to gain the knowledge and skills needed to affect social issues at the local, national, and global level. Classroom learning and connecting with local agencies will help you tailor your marketable skills and prepare you for a career in social work, counselling, education, public service, human resources, or law. Apply through Renison University College if you wish to begin this major in first year.

Sample courses: Changing Concepts of Childhood, Social Work with Families, Positive Psychology

Career possibilities: Child protection worker, community mental health consultant, planning analyst, program and development co-ordinator, community support specialist

SOCIOLOGY **(M, Bachelor of Arts)** Co-op
available if you are enrolled in Honours Arts or Honours Arts and Business

Study how societies work and how people organize themselves. This program allows you to examine age, class, ethnicity, religion, gender, health, social inequality, education, work, and politics. Walk away with the ability to conduct research, interpret social patterns and data, and critically evaluate different aspects of sociology.

Sample courses: Terrorism, Games and Gaming, Organized Crime

Career possibilities: Youth justice advocate, justice policy analyst, research associate, ESL teacher

SPANISH **(M, Bachelor of Arts)** Co-op
available if you are enrolled in Honours Arts and Business

Explore the richness of Hispanic literature and culture while learning one of the world's most popular languages. You'll also get a chance to study in Spain or in a Latin American country.

Sample courses: Poetry of Tango, Theory of Practice of Translation, Composition and Conversation

Career possibilities: Librarian, social worker, marketing manager, senior manager, translator

SPEECH COMMUNICATION **(M, Bachelor of Arts)** Co-op available if you are enrolled
in Honours Arts and Business

Discover how communication creates meaning in our world by encouraging creative, collaborative, and critical engagement. Prepare for a career in public relations, human relations, teaching, broadcasting, or marketing.

Sample courses: Persuasion, Crisis Communication, Digital Presentations

Career possibilities: Strategic planning officer, legal assistant, communications officer, digital media coordinator

WOMEN'S STUDIES **(M, Bachelor of Arts)**
Co-op available if you are enrolled in Honours Arts and Business

Understand the role gender and sex play in all aspects of life. Explore issues across time and culture, including the struggles for women's rights, the portrayal of women in popular culture, and the contributions women make in technology, health, and the global economy.

Sample courses: Gender Issues, Women and Entrepreneurship

Career possibilities: Midwife, counselling co-ordinator, social worker

SCHOOL OF ACCOUNTING AND FINANCE

W – ACCOUNTING AND FINANCIAL MANAGEMENT **(E, Bachelor of Accounting and Financial Management)** Co-op only

This program is about money, business, and management, and how they interrelate. It covers aspects of economics with a practical and professional focus.

Sample courses: Introduction to Global Financial Markets; Corporate Finance; Accounting, Assurance, and the Law

Possible professional designations: Chartered Professional Accountant (CPA), Certified Internal Auditor (CIA), Chartered Financial Analyst (CFA), or Chartered Business Valuator (CBV)

Career possibilities: Financial analyst, Chartered Professional Accountant, research analyst, investment banker, Chartered Financial Analyst

W – COMPUTING AND FINANCIAL MANAGEMENT **(E, Bachelor of Computing and Financial Management)** Co-op only

Develop expertise in both computer science and finance. Combine this interdisciplinary knowledge with 6 co-op work terms in software development, banking, investments, risk management, or insurance to become a versatile professional in the marketplace.

Sample courses: Object-Oriented Software Development, Regression and Forecasting Methods in Finance, Equity Investments

Possible professional designations: Canadian Information Processing Society (CIPS) designations, Chartered Financial Analyst (CFA)

Career possibilities: Software engineer, quantitative analyst, investment banking analyst

SCAN THIS PAGE WITH THE LAYAR APP TO REQUEST A BROCHURE ABOUT YOUR PROGRAM OF INTEREST.

FACULTY OF ENGINEERING

BIOMEDICAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Use engineering principles in biology, mechanics, physics, system analysis, and design to improve health care and quality of life. In this interdisciplinary program, you'll get hands-on experience studying biological and medical systems. By graduation, you'll be prepared for a variety of careers creating new technologies for health care or athletics.

Sample courses: Biomedical Design, Engineering Biology, Anatomical Systems Modeling

Possible professional designation: Professional Engineer

Career possibilities: Research and development of medical devices, biomedical data analysis, product design of sporting equipment

CHEMICAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Design, implement, and supervise processes for the manipulation of matter. You'll learn to transform raw materials into useful products for almost any industry – biotechnology, pollution control, alternative fuels, and power storage, to name a few!

Sample courses: Materials Science and Engineering, Bioprocess Engineering, Process Improvement and Product Development

Possible professional designation: Professional Engineer

Career possibilities: Design and creation of pharmaceuticals, manufacturing of microelectronics, process engineering of petrochemicals

CIVIL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Learn to design, construct, and manage the safe and sustainable infrastructure on which society depends – like transportation systems, waterways, and pollution control systems. In Canada's largest Civil Engineering program, you'll have the ability to tailor your degree to your own specific interests, with specialization options in transportation, structures, water resources, and more.

Sample courses: Engineering and Sustainable Development, Transportation Engineering Applications, Structural Design

Possible professional designation: Professional Engineer

Career possibilities: Design and creation of stadiums and entertainment facilities, implementation of water systems, construction site management

COMPUTER ENGINEERING (E, Bachelor of Applied Science) Co-op only

Build and test computer hardware and software, and work with larger engineered systems in distributed, networked environments. You'll explore cutting-edge topics, and get experience in state-of-the-art labs that reflect modern research and development, like wireless systems and smartphones.

Sample courses: Digital Circuits and Systems, Operating Systems and Systems Programming, Computer Networks

Possible professional designation: Professional Engineer

Career possibilities: Design of computer or software architecture, manufacturing telecommunication devices, creation of application software

ELECTRICAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Master electronic and electromagnetic design principles, and build the latest technologies in power, information, and energy. You'll explore electronic devices, control systems, and digital systems in labs. By graduation, you'll be ready to design, build, and integrate reliable and efficient technologies for a range of industries.

Sample courses: Digital Circuits and Systems, Electromagnetic Fields and Waves, Embedded Microprocessor Systems

Possible professional designation: Professional Engineer

Career possibilities: Product development of telecommunications systems, software quality assurance analysis, electric equipment manufacturing

ENVIRONMENTAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Explore a combination of environmental and engineering-related courses, and use sustainable engineering practices to prevent pollution, treat waste water, restore watersheds, and more. You'll get a broad education in environmental sciences, while developing quantitative skills to manage, protect, and rehabilitate our natural world.

Sample courses: Earth Engineering, Environmental Sustainability Assessment, Environmental Modelling

Possible professional designation: Professional Engineer

Career possibilities: Product design for air pollution control systems, process design for water treatment, transportation and infrastructure planning

GEOLOGICAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Combine Earth Sciences with Civil Engineering to design safe and durable structures, locate and explore deposits of natural resources, and improve safety during environmental disasters. You'll get outside the classroom more than any other engineering program, developing field techniques and applying your theoretical knowledge to real-world projects.

Sample courses: Earth Engineering, Structural Geology, Applied Geophysics

Possible professional designation: Professional Engineer

Career possibilities: Site investigation of mines and quarries, hazard and risk assessment of landslides and earthquakes, design of subsurface infrastructure

W – MANAGEMENT ENGINEERING (E, Bachelor of Applied Science) Co-op only

Discover how to move beyond traditional approaches to management, using engineering practices. You'll design and implement the systems on which organizations depend, while studying information technologies, business strategy, and economic trends. You'll become an invaluable asset to any organization, with the ability to optimize management systems to make organizations more efficient and profitable.

Sample courses: Work Design and Facilities Planning, Managerial and Cost Accounting, Organizational Behaviour

Possible professional designation: Professional Engineer

Career possibilities: Design and implementation of information technologies, operations research and development of new strategies

MECHANICAL ENGINEERING (E, Bachelor of Applied Science) Co-op only

Study and harness the power of mechanical design, with a wide range of engineering topics and labs that let you get your hands dirty. You'll consider a range of factors, including the environment, safety, manufacturing processes, and materials to create mechanical systems that improve human life.

Sample courses: Structure and Properties of Materials, Electromechanical Devices and Power Processing, Heat Transfer

Possible professional designation: Professional Engineer

Career possibilities: Design of aerospace accessories, manufacturing of wind turbines, research and development in automotive technologies

MECHATRONICS ENGINEERING E, Bachelor of Applied Science) Co-op only

Combine mechanical, electrical, computer, and software engineering to build smart machines like robots, intelligent vehicles, and aerospace control systems. In Canada's only full Mechatronics Engineering program, you'll get practice through labs and co-op, letting you dissect and build electro-mechanical devices, starting in your first year.

Sample courses: Sensors and Instrumentation, Microprocessors and Digital Logic, Structure and Properties of Materials

Possible professional designation: Professional Engineer

Career possibilities: Manufacture and programming of robotic devices, design of biomedical instruments, design and creation of wearable tech

W – NANOTECHNOLOGY ENGINEERING (E, Bachelor of Applied Science) Co-op only

Combine ideas from chemistry, electronics, quantum physics, and biology with engineering principles to create new technologies at the nanometre scale. You'll explore a new world of materials to make more efficient technologies, while gaining interdisciplinary knowledge that could take you into almost any industry – food processing, automotive, and even medicine.

Sample courses: Nanotoxicology, Nanomaterials and Human Studies, Quantum Mechanics

Possible professional designation: Professional Engineer

Career possibilities: Research and development for pharmaceuticals, design of advanced materials for electronic devices, manufacturing of medical instruments

SOFTWARE ENGINEERING (E, Bachelor of Science in Engineering) Co-op only

Create and maintain complex software systems using principles from mathematics, engineering, and computer science. You'll analyze software architecture, apply algorithms, and design human-computer interfaces. By the end of your degree, you'll have the technical skills you need to lead major projects.

Sample courses: Programming Principles, Logic and Computation, Foundations of Sequential Programs

Possible professional designation: Professional Engineer, Canadian Information Technology Professional

Career possibilities: Product design of operating systems, development of security systems, analysis and maintenance of web applications

W – SYSTEMS DESIGN ENGINEERING
(E, Bachelor of Applied Science) Co-op only

Take a creative, interdisciplinary approach to engineering problem solving, with design courses and team-based learning that focus on the big picture. You'll tackle challenges that lie at the interface of society, technology, and the environment with in-class studies and labs that focus on design. Throughout your degree, you'll develop innovative thinking skills from multiple engineering fields, and leverage a flexible curriculum to specialize in a variety of areas.

Sample courses: Introduction to Design; Design, Systems and Society; Human Factors in Design

Possible professional designation: Professional Engineer

Career possibilities: Product design of medical devices, development and analysis of web applications, design and creation of wearable tech

SCHOOL OF ARCHITECTURE

ARCHITECTURE (E, Bachelor of Architectural Studies) Co-op only

Design the buildings and spaces that enhance the quality and beauty of our world. From the first day of classes, you'll work in a bright studio while examining the close relationship between architecture, the environment, and society.

Sample courses: Design Studio; Cultural History; Visual Communication; Timber: Design, Structure, and Construction

Career possibilities: Architect, project manager, designer, architectural assistant

FACULTY OF ENVIRONMENT

W – ENVIRONMENT AND BUSINESS
(E, Bachelor of Environmental Studies) Co-op only

Gain expertise in ecology, environmental economics, and environmental decision-making while developing skills in finance, project management, accounting, marketing, and law. You'll stand out to future employers with your understanding of environmental issues and business acumen.

Sample courses: International Corporate Responsibility, Green Entrepreneurship, Applied Social Marketing

Career possibilities: Environmental and regulatory advisor, communications officer, project manager

ENVIRONMENT AND RESOURCE STUDIES
(E, Bachelor of Environmental Studies) Co-op available | Also available as a Minor

Look at the world from a new perspective and seek to find the answers to some of the world's biggest issues. This solutions-oriented program focuses on sustainability and the ethics of solving environmental and resource problems, ranging from water and food to energy and biodiversity.

Sample courses: The Politics of Sustainable Communities, Environmental Journalism, Global Environmental Governance

Possible professional designations: Environmental Assessment, Ecosystem Restoration

Career possibilities: Terrestrial and wetland biologist, junior public consultation consultant, policy analyst

W – GEOGRAPHY AND AVIATION
(E, Bachelor of Environmental Studies)

Earn a Bachelor of Environmental Studies while completing flight training to acquire your Commercial Pilot License. Gain a deep understanding of landforms, weather patterns, and the computer technology behind tools such as geographic information systems (GIS) and remote sensing.

Sample courses: Geography and Our Planetary Environment, Principles of GIScience, Professional Pilot Program Course

Possible professional designation: Students graduate with a Commercial Pilot License

Career possibilities: King Air 350 co-pilot, pilot, flight training instructor

GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT (E, Bachelor of Environmental Studies) Co-op available | Also available as a Minor

Learn about climate change, landforms, natural hazards, global population growth, geographic information systems, and more in this program. As one of the largest geography programs in Canada, you'll be able to take specialized courses and use contemporary facilities.

Sample courses: Geography of Tourism, Local Development in a Global Context, Modeling our Future Climate

Career possibilities: Environmental stewardship coordinator, wildlife rescue team manager, teacher

GEOMATICS (E, Bachelor of Environmental Studies) Co-op available

Join one of the fastest growing fields by combining the power of computing with geographic and environmental analysis. You'll learn to use tools such as remote sensing, computer mapping, geographic information systems (GIS), and GPS to analyze information and make meaningful decisions.

Sample courses: Earth from Space Using Remote Sensing, Geodesy and Surveying, Geoweb and Location-Based Services

Career possibilities: Data analyst, GIS operator, remote sensing specialist

INTERNATIONAL DEVELOPMENT
(E, Bachelor of Environmental Studies) Also available as a Minor

Tackle real-world problems in a sustainable and responsible manner and put your education to work on a guaranteed 8-month overseas placement in your final year.

Sample courses: Problem-Solving for Development, Marketing and Communication for Development Agents, Introduction to Social Entrepreneurship

Career possibilities: Youth engagement co-ordinator, corporate travel consultant, project coordinator

W – KNOWLEDGE INTEGRATION
(E, Bachelor of Knowledge Integration) Also available as a Minor

More than a traditional arts and science program, Knowledge Integration lets you diversify your interests rather than specialize. You'll gain a broad foundation of knowledge – from math and sciences to ethics and public speaking – and learn how to use it all together to pursue your passions.

Sample courses: The Social Nature of Knowledge, Creative Thinking, Real World Problem Solving

Career possibilities: Business analyst, researcher, graphic designer

PLANNING (E, Bachelor of Environmental Studies) Co-op available

Equip yourself with an education in economics, law, design, and more. Learn to use effective transit planning and sustainable planning practices to tackle the environmental challenges facing our cities and rural areas.

Sample courses: Visual Approaches to Design and Communication, Transportation Planning and Analysis, Urban Planning Design and the Environment

Possible professional designation: Accredited by the Canadian Institute of Planning

Career possibilities: Planner, urban designer, transit planner

FACULTY OF MATHEMATICS

ACTUARIAL SCIENCE (M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Use math and statistics to predict uncertain events such as stock market performance or insurance and pension income. Prepare for your professional actuary designation with courses in finance, risk theory, and pensions.

Sample courses: Mathematical Models in Finance, Applied Probability, Introduction to Investments

Career possibilities: Actuarial analyst, consultant, financial analyst

APPLIED MATHEMATICS (M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Combine math with computer science, engineering, and physics to solve communication and control system problems. Specialize in biology, economics, earth sciences, physics, scientific computation, or take engineering electives.

Sample courses: Applied Complex Analysis, Introduction to Computational Mathematics, Introduction to Differential Equations

Career possibilities: Researcher, software developer, analyst

W – BUSINESS ADMINISTRATION (Laurier) AND MATHEMATICS (Waterloo) DOUBLE DEGREE (E, Bachelor of Business Administration and Bachelor of Mathematics) Co-op only

Develop superior analytical and problem-solving skills in the most technical business program in Canada. Earn 2 degrees from 2 top universities in just 5 years.

Sample courses: Mathematics of Finance, Management Information Systems, Introduction to Optimization

Career possibilities: Securities trader, management analyst, corporate strategist

COMBINATORICS AND OPTIMIZATION
(M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Combinatorics is the math of finite structures: optimization improves efficiency. Take courses in cryptography, graph theory, and linear programming to model and solve problems in security, scheduling, and management.

Sample courses: Introduction to Combinatorics, Introduction to Optimization, Coding Theory

Career possibilities: Developer, analyst, researcher

COMPUTATIONAL MATHEMATICS
(M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Combine math and computer science to develop skills in the computer modelling of mathematical problems found in business, economics, engineering, finance, medicine, and science. Use computing to solve industrial-sized math problems.

Sample courses: Data Structures and Data Management, Logic and Computation, Computer Simulation of Complex Systems

Career possibilities: Project manager, enterprise architect, software developer

INFORMATION TECHNOLOGY MANAGEMENT
(M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Combine technical courses in computer science with business courses such as marketing, project management, and statistics. Graduate with the ability to apply current IT solutions to business processes.

Sample courses: Management Information Systems, Introduction to Business Organization, Organizational Design and Technology

Career possibilities: Business systems analyst, web developer, general manager

MATHEMATICAL ECONOMICS
(M, Bachelor of Mathematics) Co-op available

Learn about the mathematical models found in economic theory, and of the many advances in mathematics derived from problems in economics. Prepare for graduate school or a career in banking, government, or industry.

Sample courses: Microeconomic Theory, Macroeconomic Theory, Differential Equations for Business and Economics

Career possibilities: Business analyst, econometrician, consultant

MATHEMATICAL FINANCE
(M, Bachelor of Mathematics) Co-op available

Become a student of the most advanced undergraduate finance program in the world. You'll be among others with elite mathematical abilities who wish to pursue finance combined with pure math.

Sample courses: Introduction to Investments, Forecasting, Real Analysis

Career possibilities: Controller, compliance analyst, investment policy analyst

MATHEMATICAL OPTIMIZATION
(M, Bachelor of Mathematics) Co-op available

Help find solutions to major issues involving the scarcity of resources, like enhancing the scheduling for airline crews and sports games or improving the production and distribution efficiency for manufacturing companies. You'll learn about mathematical modelling using case studies and courses in optimization, probability, statistics, and computer science in combination with courses in business, economics, and management science. Specialize in business or operations research.

Sample courses: Introduction to Computational Mathematics, Computer Simulation of Complex Systems, Portfolio Optimization Models

MATHEMATICAL PHYSICS
(M, Bachelor of Mathematics) Co-op available

Prepare for graduate studies or a career in the semiconductor industry, telecommunications, or medical technology. The focus is on the advanced math needed for the study of physics and includes courses in computational mathematics or computer science. Apply to Physical Sciences and choose this as your major on your OUAC application.

Sample courses: Waves, Electricity, and Magnetism; Introduction to Theoretical Mechanics; Quantum Theory

Career possibilities: Operations specialist, software engineer, lecturer

MATHEMATICS
(E, Bachelor of Mathematics) Co-op available

Mathematics is the entry program that leads to 13 different math majors.

Majors include: Actuarial Science, Applied Mathematics, Combinatorics and Optimization, Computational Mathematics, Mathematical Economics, Mathematical Finance, Mathematical Optimization, Mathematical Physics, Mathematical Studies, Mathematics/Teaching, Pure Mathematics, Statistics, and Statistics for Health

Sample courses: Calculus, Algebra, Statistics

Career possibilities: Banking executive, private equity analyst, systems analyst

MATHEMATICS/BUSINESS ADMINISTRATION
(E, Bachelor of Mathematics) Co-op available

Combine courses in math and computer science with business and economics courses from nearby Wilfrid Laurier University. You'll be prepared to take on the world of business with your technical expertise.

Sample courses: Corporate Finance, Introduction to Managerial Accounting, Organizational Behaviour

Career possibilities: Operations manager, risk modelling analyst, investor relations specialist

W – MATHEMATICS/CHARTERED PROFESSIONAL ACCOUNTANCY
(E, Bachelor of Mathematics) Co-op only

Earn a Bachelor of Mathematics as you prepare for a career as a Chartered Professional Accountant (CPA). Acquire a strong background in the mathematical field of your choice, complemented by equally focused studies in accounting, economics, and business.

Sample courses: Introduction to Financial Accounting, Cost Management Systems, Corporate Finance

Career possibilities: Accountant, controller, auditor

W – MATHEMATICS/FINANCIAL ANALYSIS AND RISK MANAGEMENT
(E, Bachelor of Mathematics) Co-op available

Combine mathematics with finance, accounting, economics, and risk management to prepare for a career in banking, investment management, and risk management. Specialize in either chartered financial analysis or risk management, and prepare for professional exams such as the Chartered Financial Analyst exam.

Sample courses: Computational Methods for Business and Finance, Applied Linear Models and Process Improvement for Business, Commercial and Business Law for Mathematics Students

Career possibilities: Financial analyst, risk analyst, investment analyst

MATHEMATICS/TEACHING
(M, Bachelor of Mathematics) Co-op only

Share your love of math: become an Ontario high school mathematics teacher. Combine your math, statistics, and computer science courses with practical classroom experience.

Sample courses: Introduction to Mathematics Education, Educational Psychology, Mathematical Discovery and Invention

Career possibilities: Teacher, principal, guidance counsellor

PURE MATHEMATICS
(M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Study the power, elegance, "how," and "why" of math. Specialize in finance or mathematics teaching.

Sample courses: Fields and Galois Theory; Complex Analysis; Elementary Differential Geometry

Career possibilities: Data scientist, researcher, lecturer

STATISTICS
(M, Bachelor of Mathematics) Co-op available | Also available as a Minor

Learn about research methods and statistical applications in business, medicine, epidemiology, industrial design, pattern recognition, and artificial intelligence.

Sample courses: Applied Probability, Sampling and Experimental Design, System Performance Evaluation

Career possibilities: Biostatistician, business intelligence specialist, software quality analyst

STATISTICS FOR HEALTH
(M, Bachelor of Mathematics) Co-op available

Develop strong quantitative and data-based decision-making skills needed to be part of an effective health care research team. This program emphasizes the statistical elements of research in clinical, public, and population health.

Sample courses: Introduction to Medical Statistics, Management Information Systems, Analysis of Longitudinal Data in Health Research

Career possibilities: Researcher, data analyst, project manager

DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

W – BUSINESS ADMINISTRATION (Laurier) AND COMPUTER SCIENCE (Waterloo) DOUBLE DEGREE (E, Bachelor of Business Administration and Bachelor of Computer Science) Co-op available

Earn 2 degrees in 5 years while exploring the ever-changing world of computer science and business. Learn about software, algorithms, programming, and the limits of computation through Computer Science at Waterloo and brand communication, accounting, human resources, marketing, and finance through business at Laurier.

Sample courses: Designing Functional Problems, Understanding the Business Environment, Computer Organization and Design

Possible professional designations: Canadian Information Processing Society (Waterloo), Chartered Professional Accountant (Laurier)

Career possibilities: Business analyst, software engineer, application developer

COMPUTER SCIENCE (E, M, Bachelor of Computer Science or Bachelor of Mathematics) Co-op available | Also available as a Minor

Computer Science focuses on software, algorithms, programming, and the limits of computation. Using a combination of theory and application, you will learn how to describe problems in a formal, precise way so that machines can solve them.

Sample courses: Designing Functional Problems, Data Structures and Data Management, Operating Systems

Possible professional designation: Canadian Information Processing Society (CIPS)

Career possibilities: Agile engineer, web developer, project manager

W – COMPUTING AND FINANCIAL MANAGEMENT (E, Bachelor of Computing and Financial Management) Co-op only

Develop expertise in both computer science and finance. Combine this interdisciplinary knowledge with 6 co-op work terms in software development, banking, investments, risk management, or insurance to become a versatile professional in the marketplace.

Sample courses: Object-Oriented Software Development, Regression and Forecasting Methods in Finance, Equity Investments

Possible professional designation: Canadian Information Processing Society (CIPS) designations, Chartered Financial Analyst (CFA)

Career possibilities: Software engineer, quantitative analyst, investment banking analyst

FACULTY OF SCIENCE

BIOCHEMISTRY (E, Bachelor of Science) Co-op available | Also available as a Minor | Apply to Life Sciences on your OUAC application

Concentrated biology and chemistry courses along with extensive lab experience will prepare you for a career in forensic science, pharmaceuticals, medical diagnostics and analysis, agriculture, biochemical research, microbiology, biotechnology, or genetic engineering.

Sample courses: Fundamentals of Metabolism, Analytical Chemistry, Biochemistry of Natural Products

Career possibilities: Toxicologist, biomaterials researcher, health care professional

BIOLOGY (E, Bachelor of Science) Co-op available | Also available as a Minor | Apply to Life Sciences on your OUAC application

Study the workings of living organisms, where they come from, and how they evolve and function, gaining insight into our understanding of life. Specialize in animal biology, environmental biology, microbiology, biotechnology, plant biology, or molecular genetics.

Sample courses: Plants and Civilization, Organismal and Evolutionary Ecology, Diversity of Life

Career possibilities: Biologist, veterinarian, environmental consultant, physician, pharmacist, optometrist

BIOMEDICAL SCIENCES (E, Bachelor of Science) Apply to Life Sciences on your OUAC application

Get ready for your career in health with this flexible program that provides the foundation and experience required to succeed in virtually any professional health program in North America.

Sample courses: Human Anatomy, Biology of Human Aging, Cell Biology of Human Disease

Career possibilities: Pharmacist, optometrist, physician

W – BIOTECHNOLOGY/CHARTERED PROFESSIONAL ACCOUNTANCY (E, Bachelor of Science) Co-op only | Co-op work terms count towards Chartered Professional Accountant (CPA) designation

The only program in Canada to combine biotechnology and accounting with paid co-op work terms. Prepare for roles in professional accountancy and advisory services in the growing biotechnology sector. Upon graduation, you'll be eligible to earn your Master of Accounting (MAcc) degree within only 8 months – an optional next step in becoming a CPA.

Sample courses: Animal Cell Biotechnology, Introduction to Managerial Accounting, Introductory Statistics and Sampling for Accounting

Career possibilities: CPA, finance coordinator, analyst

W – BIOTECHNOLOGY/ECONOMICS (E, Bachelor of Science) Co-op only

The only program in Canada to integrate biotechnology, economics, and paid co-op work terms. As a trained economist, help the world capitalize on breakthrough biotech products like tumour-fighting immune cells and oil-eating bacteria.

Sample courses: Fermentation Biotechnology, Biostatistics and Experimental Design, Econometrics

Career possibilities: Economist, business and customer insights analyst, financial security advisor

CHEMISTRY (E, Bachelor of Science) Co-op available | Also available as a Minor | Apply to Physical Sciences on your OUAC application

In one of Canada's top 5 chemistry programs, you'll learn from leading experts with industry connections and work with advanced chemical instrumentation and participate in the department's cutting-edge research. Program accredited by the Canadian Society for Chemistry and the Chemical Institute of Canada.

Sample courses: Multi-Component Analysis, Quantum Molecular Dynamics, Organic Electronic Materials Synthesis

Career possibilities: Analytical chemist, chemistry patents agent, forensic scientist

EARTH SCIENCES (E, Bachelor of Science) Co-op available | Also available as a Minor | Apply to Physical Sciences on your OUAC application

Explore the world under your feet in close-knit classes and on field trips taught by professors known internationally for their geological and water research.

Sample courses: Applied Geomorphology, Volcanology and Igneous Petrology, Earth from Space Using Remote Sensing

Career possibilities: Hydrogeologist, geologist, geophysicist

ENVIRONMENTAL SCIENCE (E, Bachelor of Science) Co-op available

Ranked among the top 5 in Canada, this program provides learning in the lab and field, giving you a scientist's perspective on ecological and geological systems. Option to specialize in ecology or geoscience. Accredited by the Association of Professional Geoscientists of Ontario.

Sample courses: Organismal and Evolutionary Ecology, Mineralogy, Applied Wetland Science

Career possibilities: Geoscientist, ecologist, environmental consultant

HONOURS SCIENCE (E, Bachelor of Science)

Design your own degree. If you're still exploring which sciences intrigue you the most, take Honours Science and switch to a more specialized program like Chemistry or Biology later. Or, you can keep the program general, becoming an interdisciplinary scientist by taking lots of electives in Science and other faculties.

Sample courses: Cell Biology, The Physics of How Things Work, Geochemistry

Career possibilities: Physician, optometrist, pharmacist, genetic counsellor, teacher

LIFE PHYSICS (E, Bachelor of Science) Co-op available | Also available as a Minor (biophysics) | Apply to Life Sciences on your OUAC application

Prepare for professions that harness the power of physics, such as radiation oncology and medical imaging. If you enjoy biology and physics and are interested in health-related careers, this program may be a perfect fit.

Sample courses: Medical Physics, Biophysics of Imaging, Special Topics in Life, Medical and Biophysics

Career possibilities: Medical physicist, physician, biophysicist

LIFE SCIENCES
A group of programs that includes Biochemistry, Biology, Biomedical Sciences, Life Physics, and Psychology. Apply to Life Sciences and start your program of choice in first year. See program descriptions for details.

MATERIALS AND NANOSCIENCES
(E, Bachelor of Science) Co-op available | Apply to Physical Sciences on your OUAC application

Learn to harness the power of physics and chemistry to develop new nano-sized solutions for society in a region that's fast becoming known as Canada's quantum valley.

Sample courses: Materials and Nanosciences in the Modern World, Chemistry and the Solid State, Nanophysics

Career possibilities: Materials scientist, nanotechnologist, materials process specialist

MATHEMATICAL PHYSICS (E, Bachelor of Science)
Co-op available | Apply to Physical Sciences on your OUAC application

Prepare for careers that range from the theoretical foundations of quantum technologies to the mathematically intensive unified theories of nature. This program is similar to the Physics program, but with an emphasis on the mathematical and theoretical sides of physics.

Sample courses: Statistical Physics, Quantum Theory, Introduction to General Relativity

Career possibilities: Theoretical physicist, data scientist, quantitative analyst

MEDICINAL CHEMISTRY (E, Bachelor of Science)
Co-op only | Apply to Physical Sciences on your OUAC application

Explore the science of drug discovery in this exciting program that includes learning in computer-aided drug design. Train as a chemist who can design, synthesize, and evaluate potential drugs.

Sample courses: Structure and Bonding, Transition Element Compounds and Inorganic Materials, Medicinal Bioorganic Chemistry

Career possibilities: Medicinal chemist, research chemist, synthetic chemist

W – OPTOMETRY (Doctor of Optometry)
Regular only | Apply to a recommended Bachelor of Science program to meet requirements | Offered by Waterloo's School of Optometry & Vision Science

Apply to a recommended Bachelor of Science program to meet requirements

Help preserve and enhance vision as an Optometrist. After 3 years in a Bachelor of Science program, you can apply to Canada's only English-language instructed Doctor of Optometry program. Learn about ocular health and disease, optics, and vision, while applying your knowledge in clinical settings.

Sample courses: Optometry Clinics, Practice Management, Physiology of the Eye

Career possibilities: Registered optometrist; work in private practice, academia, or industry

W – PHARMACY (Doctor of Pharmacy)
Co-op only | Apply to a recommended Bachelor of Science program to meet requirements | Offered by Waterloo's School of Pharmacy

Train to be a pharmacist, through class work and clinical rotations. After 2 years in a Science program, you can apply to Canada's newest and only co-op pharmacy program, enhancing your learning on paid work terms and acquiring sought-after skills in community practice, hospitals, or family health teams.

Sample courses: Integrated Patient Focused Care, Professional Practice, Clinical Rotation: Integrated Care

Career possibilities: Registered pharmacist; work in community practice, hospitals, or family health teams

PHYSICAL SCIENCES
A group of programs that include Chemistry, Earth Sciences, Materials and Nanosciences, Mathematical Physics, Medicinal Chemistry, Physics, and Physics and Astronomy. Apply to Physical Sciences and start your program of choice in first year. See program descriptions for details.

PHYSICS (E, Bachelor of Science)
Co-op available | Also available as a Minor | Apply to Physical Sciences on your OUAC application

Physics is about understanding how the universe works: from quantum particles, quantum computing, and exotic states of matter, to Einstein's curved spacetime and black holes. In one of Canada's largest and most comprehensive physics programs, prepare for graduate studies or a wide range of careers requiring advanced problem-solving skills.

Sample courses: Scientific Measurement and Control, Classical Mechanics and Special Relativity, Introduction to Particle Physics

Career possibilities: Physicist, research and development scientist, physics teacher

PHYSICS AND ASTRONOMY (E, Bachelor of Science)
Co-op available | Apply via Physical Sciences on OUAC

From black holes to the Big Bang, astronomers study the most fascinating phenomena in the universe. Learn from professors who are using satellites and telescopes to explore space. Prepare for careers in astrophysics and space science, or for graduate studies in astronomy or physics.

Sample courses: Introduction to the Universe, Computational Physics, Cosmology

Career possibilities: Astronomer, aerospace scientist, remote sensing scientist

PSYCHOLOGY (E, Bachelor of Science)
Co-op available | Also available as a Minor | Apply to Life Sciences on your OUAC application | Also available as a Bachelor of Arts in the Faculty of Arts

Explore the mind in one of North America's top psychology departments. Study a range of disciplines – neuroscience, cognition, clinical, developmental, and social. A BSc in psychology will prepare you for further training in medicine, speech pathology, or other health-related fields.

Sample courses: Psychopathology, Genetics, Developmental Psychology

Career possibilities: Neuroscientist, child psychologist, psychiatrist

W – SCIENCE AND AVIATION
(E, Bachelor of Science)

Earn a Bachelor of Science while completing flight training and receive your Commercial Pilot License. Focus on physics or earth sciences, or customize your studies to include courses from a range of scientific disciplines.

Sample courses: Advanced Remote Sensing Techniques, Professional Pilot Program Course, The Physics of How Things Work

Possible professional designation: Students graduate with a Commercial Pilot License

Career possibilities: King Air 350 co-pilot, pilot, flight training instructor

W – SCIENCE AND BUSINESS
(E, Bachelor of Science) Co-op available

This one-of-a-kind program in Canada provides a strong foundation in science, along with courses in accounting, economics, marketing, computing, statistics, and human resources. Get the best of both worlds and graduate with a special degree. Become a scientist with solid business and presentation skills or a business professional who speaks the language of science.

Sample courses: Principles of Marketing and Consumer Economics, Technology Development Workshop, Principles of Molecular Biology

Career possibilities: Medical information specialist, biotech accounts manager, pharmaceutical chemist

international admission requirements 2016

PROGRAM (APPLY TO)/SYSTEM OF STUDY	INDIAN SYSTEM
Minimum System Requirements – please see program-specific requirements below	First or Second Division standing in one of the following : (1) All India Senior School Certificate awarded by CBSE OR (2) Indian School Certificate awarded by CISCE OR (3) other pre-university certificate awarded after 12 years of academic studies. Final grades will be evaluated based on board results. **NOTE: Std XII** = Standard XII; **min** = minimum final grade; **overall** = overall minimum final average.
APPLIED HEALTH SCIENCES	
Public Health Regular and co-op	Std XII English min 75%. Overall 80% Std XII.
Health Studies Regular and co-op	Std XII Chemistry and Std XII Biology, min 70% in each. Overall 80% Std XII.
Kinesiology Regular and co-op	Std XII Mathematics and Std XII Chemistry, min 70% in each. One of Std XII Physics or Std XII Biology, min 70%. Overall 80% Std XII.
Recreation and Leisure Studies Regular and co-op	Std XII English, min 70%. Overall 80% Std XII.
ARTS	
Accounting and Financial Management* Co-op only	Std XII English, min 75%. Std XII Mathematics, min 75%. Overall 85% Std XII. Admission Information Form (AIF)
Global Business and Digital Arts Regular	Std XII English, min 75%. Overall 80% Std XII.
Honours Arts (Waterloo, Renison, St. Jerome's), Independent Studies* (Waterloo), Social Development Studies (Renison) Regular	Std XII English, min 70%. Overall 80% Std XII.
Honours Arts and Business Regular and co-op	Std XII English, min 70%. Overall 80% Std XII.
COMPUTING AND FINANCIAL MANAGEMENT	
Computing and Financial Management Co-op only	Std XII Mathematics and one other Std XII academic course, min 85% in each. Std XII English, min 75%. All Std XII courses: min 80%. Admission Information Form (AIF)
ENGINEERING	
Architecture* Co-op only	Std XII Mathematics; Std XII Physics, min 70%; Std XII English, min 75%; and two other Std XII courses. Overall 80% Std XII. Admission Information Form (AIF)
Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Geological, Management, Mechanical, Mechatronics, Nanotechnology, Systems Design Co-op only	Std XII Mathematics, Std XII Physics, Std XII Chemistry, Std XII English, and one other Std XII course, min 70% in each. Overall 85% in the 5 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/eng_averages**
SOFTWARE ENGINEERING	
Software Engineering Co-op only	Std XII Mathematics, Std XII Physics, Std XII Chemistry, Std XII English, and one other Std XII course, min 70% in each. Overall 85% in the 5 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/eng_averages**
ENVIRONMENT	
Environment and Business Co-op only	Std XII English, min 70%. Overall 80% Std XII.
Environment and Resource Studies, Geography and Environmental Management Regular and co-op	Std XII English, min 70%. Overall 80% Std XII.
Geography and Aviation* Regular	Std XII Mathematics and Std XII English, min 70% in each. Strongly recommended: one of Std XII Physical or Environmental Science. Overall 80% Std XII.
Geomatics Regular and co-op	Std XII Mathematics and Std XII English, min 70% in each. Overall 80% Std XII.
International Development Regular	Std XII English, min 70%. Overall 80% Std XII.
Knowledge Integration Regular	Std XII Mathematics, Std XII English, and one Std XII Science course, min 75% in each. Overall 80% Std XII.
Planning Co-op only	Std XII English, min 75%. Overall 80% Std XII.
MATHEMATICS	
Business Administration (Laurier) and Computer Science (Waterloo), Business Administration (Laurier) and Mathematics (Waterloo) – Double Degrees Co-op only, **Mathematics/ Financial Analysis and Risk Management** Regular and Co-op	Std XII Mathematics, min 90%. Std XII English. One other Std XII course, min 90%. All Std XII courses: min 85%. Admission Information Form (AIF)
Computer Science Regular and co-op	Std XII Mathematics, min 85%. Std XII English. One other Std XII course, min 85%. All Std XII courses, min 80%. Admission Information Form (AIF)
Mathematics, Mathematics/Business Administration Regular and co-op	Std XII Mathematics, min 85%. Std XII English. One other Std XII course, min 85%. All Std XII courses: min 80%. Admission Information Form (AIF)
Mathematics/Chartered Professional Accountancy* Co-op only	Std XII Mathematics, min 90%. Std XII English. One other Std XII course, min 90%. All Std XII courses: min 85%. Admission Information Form (AIF)
SCIENCE	
Biotechnology/Chartered Professional Accountancy*, Biotechnology/Economics Co-op only; **Environmental Science, Life Sciences, Physical Sciences, Science and Business** Regular and co-op; **Honours Science, Science and Aviation*** Regular only	Std XII Mathematics, min 70%. Std XII English, min 70%. Two of Std XII Biology, Std XII Chemistry, or Std XII Physics. One other Std XII course. Overall 80% including required courses; except Biotechnology/ Chartered Professional Accountancy: overall 94%, Biotechnology/Economics: overall 85%.

Minimum Admission Requirement: Completed high school diploma or equivalent university preparation for your program. Minimum admission requirements are subject to change. For some programs the demand for places by qualified applicants exceeds the number of places available.

* Refer to additional admission requirements and special notes on page 28.

SCAN THIS PAGE WITH THE LAYAR APP TO LEARN HOW THE ADMISSION INFORMATION FORM HELPS YOUR APPLICATION.

INTERNATIONAL BACCALAUREATE SYSTEM	AMERICAN SYSTEM
IB total scores exclude Diploma points. For programs listing HL or SL English A, the HL English B with a min 5 is acceptable. For programs listing HL or SL Mathematics, Math Studies will not be accepted. **NOTE: HL** = Higher Level; **SL** = Standard Level; **min** = minimum final grade; **total** = overall minimum grade total.	High School Diploma with prerequisite courses completed at the AP level and/or Grade 12 senior academic level. SAT I scores or ACT test results must be submitted. Minimum SAT I combined Math and Critical Reading score, all faculties: normally 1100. Writing component: evaluated individually. **NOTE: min** = minimum final grade; **average** = minimum final overall Grade 12 average.
HL English A, min 4 or SL English A, min 5. Total 28.	Grade 12 English, min 80%. Average 85%.
HL Chemistry and either HL or SL Biology, min 5 in each. Total 28.	AP Chemistry and AP Biology, min 3 in each. Average 85%.
Mathematics (HL recommended) and HL Chemistry, min 5 in each. One of HL or SL Physics or Biology, min 5. Total 28.	Honours Pre-Calculus or AP Calculus; Grade 12 (Senior Level) Chemistry, min 75% in each. One of Biology or Physics, min 75%, preferably at the AP level, min 3. Average 85%.
HL English A, min 4 or SL English A, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. HL Mathematics, min 5. Total 28. Admission Information Form (AIF)	Grade 12 English, min 80%. AP Calculus and Algebra (Pre-Calculus), min 80% in each. Average 88%. Admission Information Form (AIF)
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 80%. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL English A, min 4 or SL English A, min 5; or HL English B, min 5. Total 29. Admission Information Form (AIF)	AP Calculus exam, min 4. Algebra (Pre-Calculus). Grade 12 English, min 75%. Average 90%. Admission Information Form (AIF)
Mathematics and Physics (HL recommended), min 5 in each. HL or SL English A, min 5. Three additional HL or SL courses, min 5 in each. Total 32. Admission Information Form (AIF)	AP Calculus, AP Physics (or 2 high school Physics courses when AP is unavailable), Algebra (Pre-Calculus) min 75% in each. Grade 12 English, min 80% plus two additional Grade 12 courses. Average 85%. Admission Information Form (AIF)
Mathematics and Physics (HL recommended), min 4 in each. Chemistry and English A, min 4 in each. One other HL or SL course, min 4. Total 32. Admission Information Form (AIF). Individual selection may vary; 6s and 7s recommended for competitive programs; details: **bit.ly/eng_averages**	AP Calculus, AP Physics (or 2 high school Physics courses when AP is unavailable), Algebra (Pre-Calculus), Chemistry, Grade 12 English, and one other Grade 12 academic course, min 75% in each. Average 88% in the 6 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/ eng_averages**
Mathematics and Physics (HL recommended), min 4 in each. Chemistry and English A, min 4 in each. One other HL or SL course, min 4. Total 32. Admission Information Form (AIF). Individual selection may vary; 6s and 7s recommended for competitive programs; details: **bit.ly/eng_averages**	AP Calculus, AP Physics (or 2 high school Physics courses when AP is unavailable), Algebra (Pre-Calculus), Chemistry, Grade 12 English, and one other Grade 12 academic course, min 75% in each. Average 88% in the 6 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/ eng_averages**
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL or SL Mathematics, min 5. HL English A, min 4; SL English A, min 5; or HL English B, min 5. Strongly recommended: one SL course in Physical or Environmental Science. Total 27.	Grade 12 Mathematics and Grade 12 English, min 75% in each. Strongly recommended: one Grade 12 course in Physical or Environmental Science. Average 85%.
HL or SL Mathematics, min 5. HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English min 75%, Grade 12 Mathematics, min 75%. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 75%. Average 85%.
HL or SL Mathematics and Science, min 5 in each. HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 Mathematics, Grade 12 Science, and Grade 12 English, min 80% in each. Average 85%.
HL English A, min 4; SL English A, min 5; or HL English B, min 5. Total 27.	Grade 12 English, min 80%. Average 85%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A. Total 29. Admission Information Form (AIF)	AP Calculus exam, min 4. Algebra (Pre-Calculus). Grade 12 English. Average 90%. Admission Information Form (AIF)
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A. Total 29. Admission Information Form (AIF)	AP Calculus exam, min 4. Algebra (Pre-Calculus). Grade 12 English. Average 90%. Admission Information Form (AIF)
HL Mathematics, min 5. Two other HL courses, min 5 in each. HL or SL English A. Total 29. Admission Information Form (AIF)	AP Calculus exam, min 4. Algebra (Pre-Calculus). Grade 12 English. Average 90%. Admission Information Form (AIF)
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A. Total 29. Admission Information Form (AIF)	AP Calculus exam, min 4. Algebra (Pre-Calculus). Grade 12 English. Average 90%. Admission Information Form (AIF)
HL or SL Mathematics, min 5. HL or SL English A, min 5. Two of Biology, Chemistry, or Physics (at least one HL), min 4 in each. Total 27 for all; except Biotechnology/ Chartered Professional Accountancy: Total 35; Biotechnology/Economics: Total 29.	AP Calculus (preferred) or Grade 12 Calculus, min 80%. Grade 12 English, min 80%. Algebra (Pre-Calculus). Two of Biology, Chemistry, Physics, or Statistics, min 80% in each. One other Grade 12 academic or AP course. Average 85% including required courses; except Biotechnology/ Chartered Professional Accountancy: average 94%; Biotechnology/Economics: average 87%.

international admission requirements continued

PROGRAM (APPLY TO)/SYSTEM OF STUDY	BRITISH SYSTEM
Minimum System Requirements – please see program-specific requirements below	General Certificate of Secondary Education or equivalent with passes in at least 5 unique subjects, 3 of which must be at the Advanced Level. Individual consideration may be given for 2 A-levels. General paper is not accepted for the English course requirements. **NOTE: min** = minimum final grade.
APPLIED HEALTH SCIENCES	
Public Health Regular and co-op – see note on page 17	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
Health Studies Regular and co-op	A-level Chemistry and A-level Biology, min B in each. Plus one additional A-level, min C.
Kinesiology Regular and co-op	A-level Mathematics, min C. A-level Chemistry, min B. One additional A-level, min B. One of Physics or Biology at the GCSE, AS, or A-level, min B.
Recreation and Leisure Studies Regular and co-op	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
ARTS	
Accounting and Financial Management* Co-op only	A-level Mathematics, min A and two other A-level courses, min B in each. English at either the GCSE, AS, or A-level, min A. Admission Information Form (AIF)
Global Business and Digital Arts Regular	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min A.
Honours Arts (Waterloo, Renison, St. Jerome's), Independent Studies* (Waterloo), Social Development Studies (Renison) Regular	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
Honours Arts and Business Regular and co-op	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
COMPUTING AND FINANCIAL MANAGEMENT	
Computing and Financial Management Co-op only	A-level Mathematics and one other academic A-level course, min A in each. One other academic A-level, min B. English at either the GCSE, AS, or A-level, min B. Admission Information Form (AIF)
ENGINEERING	
Architecture* Co-op only	A-level Mathematics and A-level Physics, min B in each. One additional A-level, min B. English at either the GCSE, AS, or A-level, min B. One additional course at the GCSE, AS, or A-level, min B. Admission Information Form (AIF)
Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Geological, Management, Mechanical, Mechatronics, Nanotechnology, Systems Design Co-op only	A-level Mathematics and A-level Physics, min A in each. One additional A-level, min B. Chemistry (GCSE-level required, A-level recommended), min B. GCSE-level English, min B. Admission Information Form (AIF). Individual selection may vary; A's and A*'s recommended for competitive programs; details: **bit.ly/eng_averages**
SOFTWARE ENGINEERING	
Software Engineering* Co-op only	A-level Mathematics and A-level Physics, min A in each. One additional A-level, min B. Chemistry (GCSE-level required, A-level recommended), min B. GCSE-level English, min B. Admission Information Form (AIF). Individual selection may vary; A's and A*'s recommended for competitive programs; details: **bit.ly/eng_averages**
ENVIRONMENT	
Environment and Business Co-op only	Three A-level courses, min B in each. English at either the GCSE, AS, or A-level, min B.
Environment and Resource Studies Regular and co-op	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
Geography and Aviation* Regular	English at either the GCSE, AS, or A-level, min B. A-level Mathematics, min B. Two other A-level courses, min B and C. Strongly recommended: one A-level course in Physical or Environmental Science.
Geography and Environmental Management Regular and co-op	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
Geomatics Regular and co-op	A-level Mathematics, min B. Two other A-level courses, min one B and one C. English at either the GCSE, AS, or A-level, min B.
International Development Regular	Three A-level courses, min two B's and one C. English at either the GCSE, AS, or A-level, min B.
Knowledge Integration Regular	A-level Mathematics and one A-level Science course, min B in each. One additional A-level course, min C. English at either the GCSE, AS, or A-level, min B.
Planning Co-op only	Three A-level courses, min B in each. English at either the GCSE, AS, or A-level, min B.

CARIBBEAN ADVANCED PROFICIENCY EXAMINATION	CHINESE SYSTEM
Caribbean Secondary Education Certificate with passes in at least 5 subjects, 2 of which must be at the Unit 2 level. **NOTE: min** = minimum final grade.	Chinese High School Diploma. Completion of a minimum of five Senior 3 academic courses. **NOTE: Senior 3** = Senior 3-level; **min** = minimum final grade; **overall** = minimum overall final average.
Two Unit 2 courses, min 2 in one and Grade 3 in the other. English at either the CXC, Unit 1 or Unit 2 level, min 3.	Senior 3 English, min 80%. Overall 85% in Senior 3.
Unit 2 Chemistry and Unit 2 Biology, min 2 in each.	Senior 3 Chemistry and Senior 3 Biology, min 75% in each. Overall 85% in Senior 3.
Unit 2 Mathematics and Unit 2 Chemistry, min 2 in each. One of Physics or Biology at the Unit 1 or Unit 2 level, min 2.	Senior 3 Chemistry and Senior 3 Mathematics with evidence of Calculus, min 75% in each. One of Physics or Biology at the Senior 3 level, min 75%. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in one and Grade 3 in the other. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 80% in Senior 3.
Unit 2 Pure Mathematics, min 2. One other Unit 2 course, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 2. Admission Information Form (AIF)	Senior 3 English and Senior 3 Mathematics with evidence of Calculus and Algebra, min 80%. Overall 88% in Senior 3. Admission Information Form (AIF)
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 80%. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in one and Grade 3 in the other. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 2. Admission Information Form (AIF)	Senior 3 Mathematics, min 90%. Senior 3 English, min 75%. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics and Unit 2 Physics, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 2. Two other Unit 1 or Unit 2 academic courses, min 2 in each. Admission Information Form (AIF)	Senior 3 Mathematics with evidence of Calculus and Algebra, min 75%. Senior 3 Physics, min 75%. Senior 3 English, min 80%. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics and Unit 2 Physics, min 2 in each. Chemistry and English (CXC required, CAPE recommended), min 2 in each. One other Unit 1 or Unit 2 academic course, min 2. Admission Information Form (AIF). Individual selection may vary; mostly 1s recommended for competitive programs; details: **bit.ly/eng_averages**	Senior 3 Mathematics with evidence of Calculus and Algebra, min 75%. Senior 3 Physics, Senior 3 Chemistry, and Senior 3 English, min 75% in each. One other Senior 3 academic course, min 75%. Overall 88% in 5 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/eng_averages**
Unit 2 Pure Mathematics and Unit 2 Physics, min 2 in each. Chemistry and English (CXC required, CAPE recommended), min 2 in each. One other Unit 1 or Unit 2 academic course, min 2. Admission Information Form (AIF). Individual selection may vary; mostly 1s recommended for competitive programs; details: **bit.ly/eng_averages**	Senior 3 Mathematics with evidence of Calculus and Algebra, min 75%. Senior 3 Physics, Senior 3 Chemistry, and Senior 3 English, min 75% in each. One other Senior 3 academic course, min 75%. Overall 88% in 5 required courses. Admission Information Form (AIF). Individual selection may vary, details: **bit.ly/eng_averages**
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Unit 2 Mathematics, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 3. One other Unit 2 course, min 3. Strongly recommended: one Unit 2 course in Physical or Environmental Science.	Senior 3 Mathematics and Senior 3 English, min 75%. Strongly recommended: Senior 3 course in Physical or Environmental Science. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in one and Grade 3 in the other. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Unit 2 Mathematics, min 2. One other Unit 2 course, min 3. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English and Senior 3 Mathematics, min 75%. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 75%. Overall 85% in Senior 3.
Unit 2 Mathematics, and Unit 2 Science, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 2.	Senior 3 Mathematics, one Senior 3 Science, and Senior 3 English, min 80% in each. Overall 85% in Senior 3.
Two Unit 2 courses, min 2 in each. English at either the CXC, Unit 1, or Unit 2 level, min 2.	Senior 3 English, min 80%. Overall 85% in Senior 3.

international admission requirements continued

PROGRAM (APPLY TO)/SYSTEM OF STUDY	BRITISH SYSTEM
Minimum System Requirements – please see program-specific requirements below	General Certificate of Secondary Education or equivalent with passes in at least 5 unique subjects, 3 of which must be at the Advanced Level. Individual consideration may be given for 2 A-levels. General paper is not accepted for the English course requirements. **NOTE: min** = minimum final grade.
MATHEMATICS	
Business Administration (Laurier) and Computer Science (Waterloo), **Business Administration (Laurier) and Mathematics (Waterloo) – Double Degree** Co-op only, **Mathematics/Financial Analysis and Risk Management** Regular and co-op	A-level Mathematics and one other academic A-level course, min A in each. One other academic A-level, min B. English at either the GCSE, AS, or A-level. Admission Information Form (AIF)
Computer Science Regular and co-op	A-level Mathematics and one other academic A-level course, min A in each. One other academic A-level, min B. English at either the GCSE, AS, or A-level. Admission Information Form (AIF)
Mathematics, Mathematics/Business Administration Regular and co-op	A-level Mathematics min A. Two other academic A-level courses, min B in each. English at either the GCSE, AS, or A-level. Admission Information Form (AIF)
Mathematics/Chartered Professional Accountancy* Co-op only	A-level Mathematics and one other academic A-level course, min A in each. One other academic A-level, min B. English at either the GCSE, AS, or A-level. Admission Information Form (AIF)
SCIENCE	
Biotechnology/Chartered Professional Accountancy*, Biotechnology/ Economics Co-op only; **Environmental Science, Life Sciences, Physical Sciences, Science and Business** Regular and co-op; **Honours Science, Science and Aviation*** Regular only	A-level Mathematics, min B. Two of Biology, Chemistry or Physics (one must be at the A-level), min B. One other academic A-level, min B. GCSE-level English, min B.

*additional admission requirements and notes

Admissions Information Form (AIF) must be completed for most programs. Details will be sent to you once you apply.

» **Accounting and Financial Management –** Applicants will be required to complete an Accounting and Financial Management Admissions Assessment. Details will be emailed to you once you've applied. Financial Management co-op jobs for international students on a Canadian study permit are limited. Study Permit enrolment is limited.

» **Architecture –** Qualified applicants will be invited to complete an English précis-writing exercise and to submit a portfolio. **bit.ly/wat_arch**

» **Biotechnology/Chartered Professional Accountancy and Mathematics/Chartered Professional Accountancy –** Open only to Canadian citizens and Permanent Residents.

» **Geography and Aviation or Science and Aviation –** Qualified applicants will be asked to complete a screening process by the Waterloo-Wellington Flight Centre that includes a Program Briefing Session and Transport Canada Category 1 Aviation Medical Certification.

» **Software Engineering –** Experience in developing well-structured, modular programs is required: **bit.ly/wat_software**. Applicants will be asked to explain programming experience on the Admissions Information Form.

application tips

» Applicants from high schools outside of North America and not following the American, British, Caribbean Advanced Proficiency Examination, Chinese, Indian, or International Baccalaureate system of study should attach course descriptions for senior-level mathematics along with their transcripts.

» Repeated courses may be taken into consideration depending on the program.

» Engineering, Mathematics, and Science faculties may consider GCSE-level English as a Second Language provided that you also submit a satisfactory English Language test score.

» Applied Health Sciences, Arts, Accounting and Financial Management, Environment, and Architecture will not accept GCSE-level English as a Second Language to satisfy the academic English course requirement.

CARIBBEAN ADVANCED PROFICIENCY EXAMINATION	CHINESE SYSTEM
Caribbean Secondary Education Certificate with passes in at least 5 subjects, 2 of which must be at the Unit 2 level. **NOTE: min** = minimum final grade.	Chinese High School Diploma. Completion of a minimum of five Senior 3 academic courses. **NOTE: Senior 3** = Senior 3-level; **min** = minimum final grade; **overall** = minimum overall final average.
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1, or Unit 2 level. Admission Information Form (AIF)	Senior 3 Mathematics, min 90%. Senior 3 English. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1 or Unit 2 level. Admission Information Form (AIF)	Senior 3 Mathematics, min 90%. Senior 3 English. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1, or Unit 2 level. Admission Information Form (AIF)	Senior 3 Mathematics, min 90%. Senior 3 English. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1, or Unit 2 level. Admission Information Form (AIF)	Senior 3 Mathematics, min 90%. Senior 3 English. Overall 85% in Senior 3. Admission Information Form (AIF)
Unit 2 Pure Mathematics, min 3. English at either the CXC, Unit 1, or Unit 2 level, min 2. Two of Biology, Chemistry, Environmental Science, or Physics (one must be at the Unit 2 level), min 2 in each.	Senior 3 Mathematics, min 80%. Senior 3 English, min 80%. Two of Senior 3 Biology, Senior 3 Chemistry, or Senior 3 Physics, min 85% in each. One other Senior 3 academic course. Overall 85% in Senior 3, including required courses; except Biotechnology/Chartered Professional Accountancy: overall 94%; Biotechnology/Economics: overall 87%.

choose your focus

Apply to the bolded program to study one of the majors listed.

* Regular-only, *** Co-op-only.

NOTE: Majors listed without an asterisk have both co-op and regular options.

HONOURS ARTS
Anthropology*; Classical Studies*; Economics; English; Fine Arts*; French*; German*; History*; Legal Studies*; Medieval Studies*; Music*; Peace and Conflict Studies*; Philosophy*; Political Science; Psychology; Religious Studies*; Sexuality, Marriage, and Family Studies*; Social Development Studies*; Sociology; Spanish*; Speech Communication*; Theatre and Performance*; Women's Studies*

HONOURS ARTS AND BUSINESS
Anthropology; Classical Studies; Economics; English; Fine Arts; French; German; History; Legal Studies; Medieval Studies; Music; Peace and Conflict Studies; Philosophy; Political Science; Psychology; Religious Studies; Sexuality, Marriage, and Family Studies; Social Development Studies; Sociology; Spanish; Speech Communication; Theatre and Performance; Women's Studies

COMPUTER SCIENCE
Computer Science (BCS or BMath), Teaching Option (BMath)***

ENVIRONMENTAL SCIENCE
Ecology, Geoscience

LIFE SCIENCES
Biochemistry, Biology, Biomedical Sciences*, Life Physics, Psychology

MATHEMATICS
Actuarial Science, Applied Mathematics, Combinatorics and Optimization, Computational Mathematics, Mathematical Economics, Mathematical Finance, Mathematical Optimization, Mathematical Physics, Mathematical Studies, Pure Mathematics, Statistics, Statistics for Health***, Teaching Option***

MATHEMATICS/BUSINESS ADMINISTRATION
Information Technology Management, Mathematical Economics

PHYSICAL SCIENCES
Chemistry, Earth Sciences, Materials and Nanosciences, Mathematical Physics, Medicinal Chemistry***, Physics, Physics and Astronomy

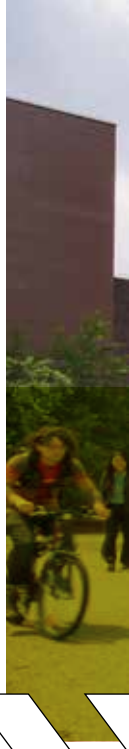
RECREATION AND LEISURE STUDIES
Recreation and Leisure Studies, Recreation and Sport Business, Therapeutic Recreation, Tourism Development

SCIENCE – HONOURS SCIENCE*
Biochemistry, Biology, Biomedical Sciences, Chemistry, Earth Sciences, Environmental Science, Life Physics, Materials and Nanosciences, Mathematical Physics, Physics, Physics and Astronomy, Psychology, Non-Specialized

SCIENCE AND AVIATION*
Earth Sciences, Physics, Non-Specialized

SCIENCE AND BUSINESS
Biochemistry, Biology, Biotechnology, Chemistry, Earth Sciences, Environmental Sciences, Physics, Non-Specialized

financing your education



University is a costly venture, but with our support you'll see you can afford to come to Waterloo. Below is an overview of the costs and the scholarships, bursaries, and other financial assistance programs that are available to you. Find complete details at: uwaterloo.ca/findoutmore/financing.

Scholarships

You're automatically considered for most scholarships; in most cases, an application is not required. To learn more about Waterloo's scholarships, visit **uwaterloo.ca/findoutmore/scholarships**.

SCHOLARSHIPS – BASED ON ACADEMIC ACHIEVEMENT	VALUE $CAD
President's Scholarship of Distinction	$2,000 for your first year, plus up to $3,000 available in upper years
Merit and President's Scholarship	$1,000-$2,000 for your first year
Waterloo Faculty Entrance Scholarships	$500 for one year to $80,000 over 4 years

First-year tuition and fees (September-April)

Amounts shown are in Canadian dollars (CAD) and are estimated averages based on 2015 figures. Exact amounts for 2016-2017 will be available in July 2016.

PROGRAM/FACULTY	TUITION IN $CAD
Applied Health Sciences, Accounting and Financial Management[1], Arts, Computing and Financial Management[1], Environment	$22,780
Architecture, Engineering, Software Engineering	$32,802-$33,770
Mathematics, Science	$23,818-$24,662
Global Business and Digital Arts	$24,980

Other expenses

- Co-op programs: additional co-op fee of **$658** per term beginning in second year for most programs, and in first year for Engineering and Math programs.
- Books and supplies: **$2,000** (most programs); Architecture = **$4,300 CAD**
- Incidental fees: **$1,700-$2,000 CAD**

Living expenses for 8 months

- Residence: **$9,200-$11,700 CAD** depending on your residence and meal plan.
- Off campus: **$6,700 CAD** – amounts vary depending on your living arrangements.
- Other costs: **$3,000 CAD** for personal expenses (e.g., phone, entertainment, recreation, laundry, clothing). Amounts vary depending on your needs.

NOTE: [1] For accounting and finance programs, as with most university professional programs, tuition is significantly higher in your upper years.

other ways to finance your education

- Apply to a co-op program. You'll gain experience and earn $37,000-$77,000 CAD on average over the course of your studies.
- Get a part-time job. You can work on or off campus during your studies. Most part-time jobs pay $11 CAD or more per hour.
- Work in Canada after graduation. As an international student, you can work in Canada for up to 3 years after graduation to gain experience and pay for your education.

20 INTERNATIONAL STUDENT ENTRANCE SCHOLARSHIPS – $10,000 CAD

how to apply

1 » Check the admission requirements for your program. Details: pages 24-29 or **uwaterloo.ca/findoutmore/admissions**.

2 » Apply through the Ontario Universities' Application Centre (OUAC) at **www.ouac.on.ca**. If you have questions, call 519-888-4567, ext. 33106, or email **myapplication@uwaterloo.ca**.

» **Application and document deadlines**

FALL TERM	DATE APPLICATION INFORMATION AND FEES MUST REACH OUAC	DATE DOCUMENTS MUST REACH WATERLOO
September 2016 – All Programs*	March 31, 2016	April 8, 2016
*EXCEPTIONS		
Architecture	February 5, 2016	March 1, 2016
Accounting and Financial Management	February 5, 2016	March 1, 2016
Engineering, Software Engineering	March 1, 2016	March 31, 2016

3 » Watch for our email with your Waterloo ID number and details about what to do once you've applied.

4 » Arrange to have necessary documents submitted to us. Supporting documents from your high school may need to be provided (e.g., transcripts, proof of English language instruction).

5 » You must complete an Admissions Information Form (AIF) for most programs. Details will be sent to you once you apply.

English Language Test Scores

» Must MEET or EXCEED the minimum scores required for ONE of the options listed below if:
- your first language is not English and
- you have not studied in an English-language school system for the most recent 4 years immediately before the beginning of your studies at Waterloo.

Details about conditions, exemptions, and alternatives: **uwaterloo.ca/findoutmore/elr**

OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	OPTION 6
Internet-based TOEFL	IELTS	MELAB	CAEL	PTE (Academic)	English for Academic Success **bit.ly/efas**
90; writing: 25; speaking: 25	7.0	85; 80 per section; for co-op programs: 3 speaking	70 overall; 60 per band; 70 writing; 70 speaking	63 overall; 65 writing; 65 speaking	75% overall in 400 level; 75% academic; 75% oral; 75% writing

Are you great with numbers but have low English Language test scores?
Waterloo has two different programs that can help you improve.

Faculty of Mathematics – Math/English language for academic studies (ELAS):
uwaterloo.ca/math/future-undergraduates/programs/about-mathelas

All other faculties – Bridge to Academic Success in English (BASE):
uwaterloo.ca/findoutmore/base

Transfer credits

For programs in the faculties of Applied Health Sciences, Arts, Environment, Mathematics, Science, and the School of Architecture, transfer credits will be considered for Advanced Placement (AP) and International Baccalaureate (IB) courses.

Not familiar with our Admission Information Form (AIF)?

When we make our admissions decisions, we look at other factors in addition to grades. You can use the AIF to:

» Tell us more about yourself.

» Tell us about your extra-curricular activities.

» Explain any special circumstances that may have affected your grades and/or which you would like to be taken into consideration during the admissions process.

» Brag a little!

uwaterloo.ca/findoutmore/aif

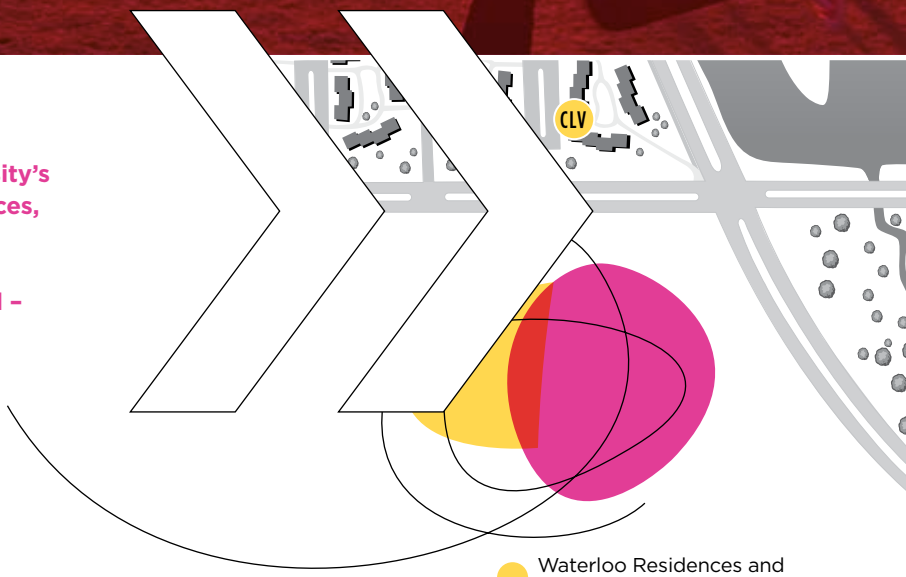
SCAN THIS PAGE WITH THE LAYAR APP TO WATCH A VIDEO WITH TIPS FOR APPLYING TO WATERLOO.

discover Wat

Located within and just beyond the University's perimeter is everything you need – residences, lecture halls, laundromats, coffee shops, bookstores, ATMs, cafeterias, and more! Our campus was designed with you in mind – it's safe, park-like, and pedestrian friendly.

» **Campus tours are usually offered daily**
Monday-Saturday*

* Most days in September-November, January-March, and May-July, excluding holidays and holiday weekends



Waterloo Residences and Student Services buildings

book a campus tour/ general inquiries

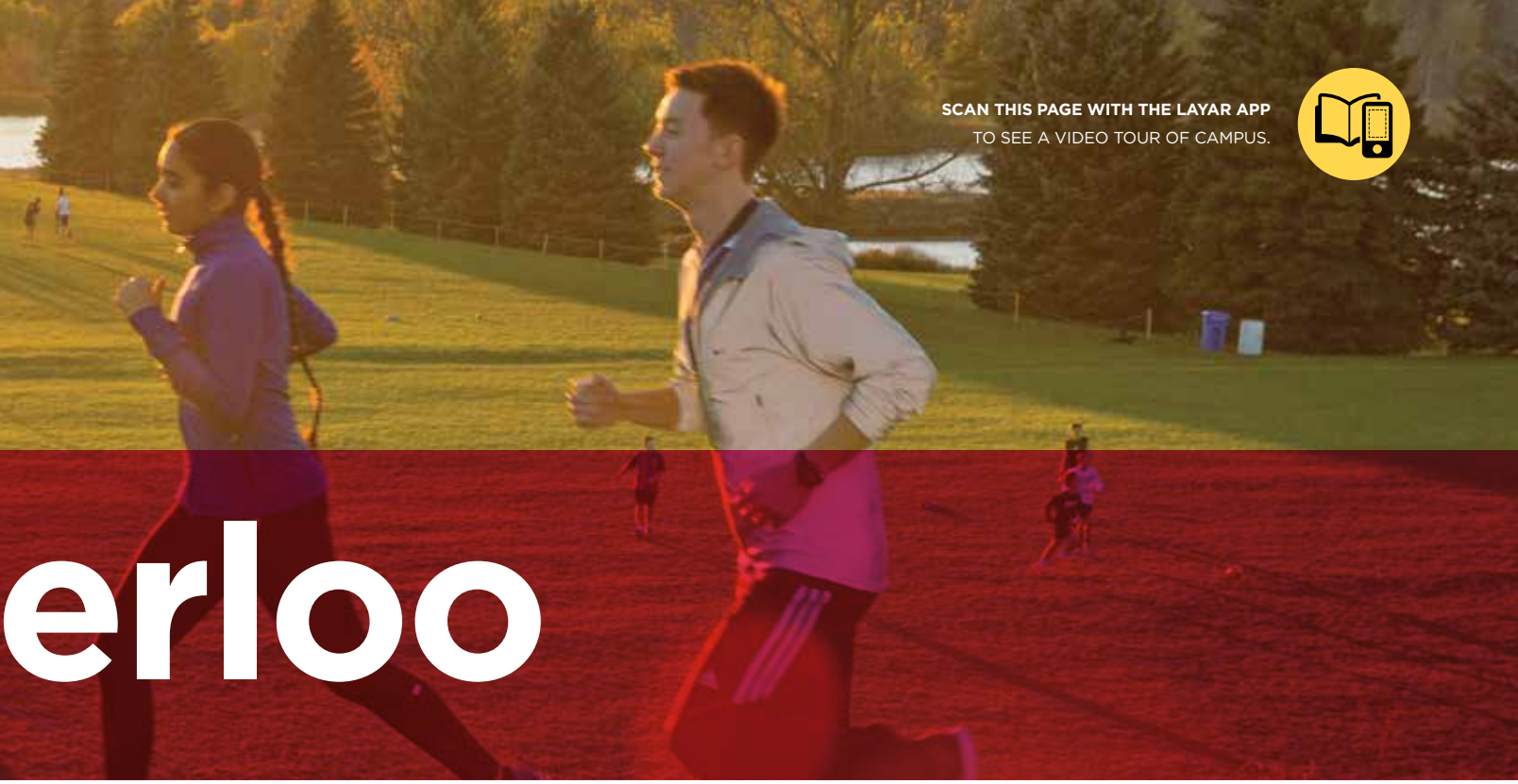
519-888-4567, ext. 33614
uwaterloo.ca/findoutmore/visit-us
askus@uwaterloo.ca

questions about your application

myapplication@uwaterloo.ca
uwaterloo.ca/findoutmore/admissions

questions about programs

- **Accounting and Financial Management** afm@uwaterloo.ca
- **Computing and Financial Management** cfm@uwaterloo.ca
- **Faculty of Applied Health Sciences** ahsinfo@uwaterloo.ca
- **Faculty of Arts** arts@uwaterloo.ca
- **Faculty of Engineering** enginfo@uwaterloo.ca
- **Faculty of Environment** envinfo@uwaterloo.ca
- **Faculty of Mathematics** mathinfo@uwaterloo.ca
- **Faculty of Science** science@uwaterloo.ca
- **School of Architecture** archinfo@uwaterloo.ca
- **School of Computer Science** future-ugrad@cs.uwaterloo.ca
- **Conrad Grebel University College** infocguc@uwaterloo.ca
- **Renison University College** more@renison.uwaterloo.ca
- **St. Jerome's University** sjuinfo@uwaterloo.ca
- **St. Paul's University College** stpauls@uwaterloo.ca



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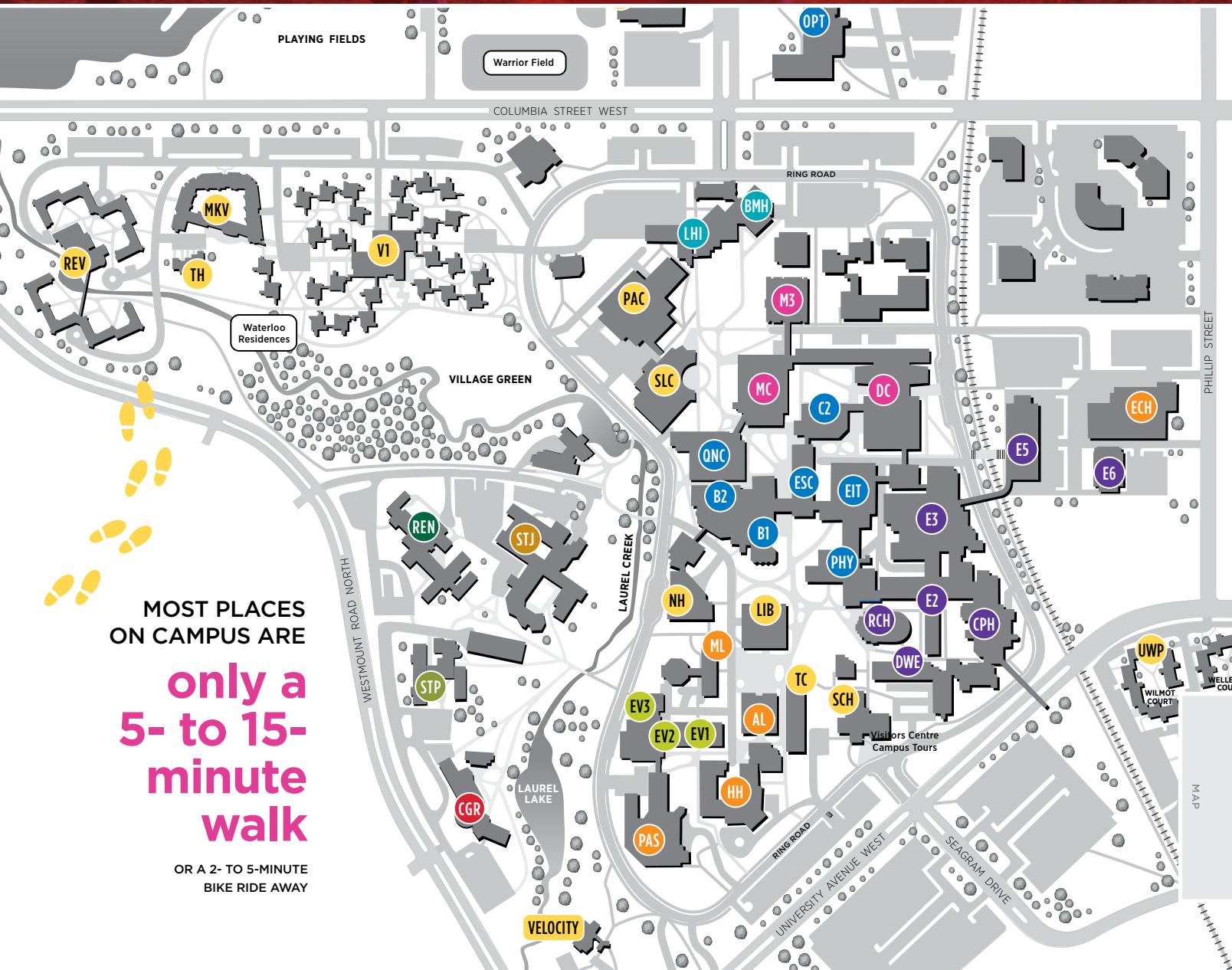
TO SEE A VIDEO TOUR OF CAMPUS.

erloo



MOST PLACES ON CAMPUS ARE

only a 5- to 15-minute walk

OR A 2- TO 5-MINUTE BIKE RIDE AWAY

ideas start here®

CONTACT US

UNIVERSITY OF WATERLOO
200 University Avenue West
Waterloo, Ontario, Canada N2L 3G1

Call +1-519-888-4567 and key in the extension, send an email, or visit the websites.

Visitors Centre/Questions about programs
ext. 33614, askus@uwaterloo.ca

Questions about your application
ext. 33106, myapplication@uwaterloo.ca

uwaterloo.ca/findoutmore/admissions

COME FOR A VISIT

Fall Open House
November 7, 2015

March Break Open House
March 19, 2016

NOTE: You can arrange a tour at another time by contacting the Visitors Centre at 519-888-4567, ext. 33614. **uwaterloo.ca/findoutmore/visit-us**

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