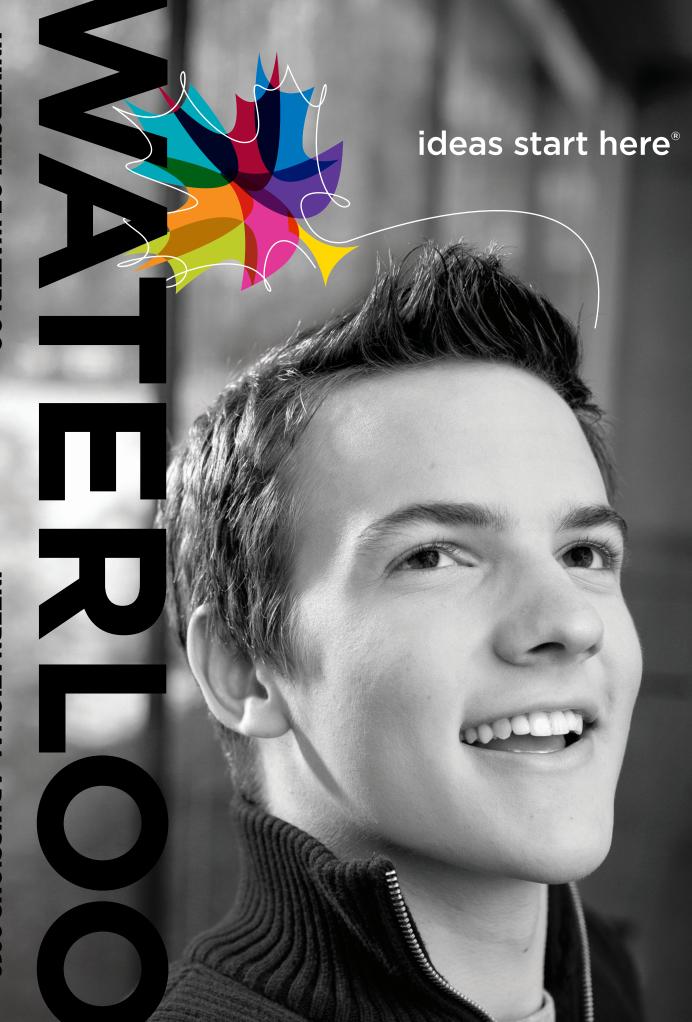
UNIVERSITY OF WATERLOO » UWATERLOO.CA » INTERNATIONAL ADMISSIONS 2012



## imagine.

a computer that fits in your pocket.

## Dream of a world free of electrical cords and outlets.

## Dream of the invention that would make this possible.

That's what Jonathan and some classmates want to accomplish. They see themselves creating a wireless router to control electricity. Electronic devices could be remotely powered from any location in the home.

Jonathan's idea may be ahead of its time, but someday it could become a reality. He's not alone on our campus. In our classrooms, residences, and coffee shops, you'll find others who are passionate about making their dream come true. At Waterloo, it all starts with an idea. CANADA'S MOST INNOVATIVE UNIVERSITY FOR 19 YEARS IN ROW

MACLEAN'S NEWSMAGAZINE

# it's all possible...

#### Imagine. The BlackBerry®.

In 1984, a fourth-year Engineering student founded his own company. At Waterloo, there's nothing too unusual about that – we've always been a magnet for "idea people."

What is remarkable is the company he founded – Research In Motion, maker of the BlackBerry® smartphone. Mike Lazaridis took what he learned in school and transformed his idea into one of the world's most successful companies.

The idea started right here in one of our classrooms.

Whether you already know what you'd like to study or you want to explore what's possible, Waterloo is the place where you can bring your ideas to life.

Ideas start here®.

## canada's most innovative university ...for 19 years in a row.

- Maclean's newsmagazine

#### ideas that started here:



#### 2 » ONE OF THE LEADING BLOGS

FOR CAREER-MINDED WOMEN AND WOMEN ENTREPRENEURS - SHE TAKES ON THE WORLD SHETAKESONTHEWORLD.NET

#### 3 » MOBILE ROBOTS TO SHAPE THE FUTURE OF AUTOMATION - CLEARPATH ROBOTICS

imagine your idea here!

#### Why study at Waterloo?

#### Benefit from our world-class reputation

- » Best overall university in Canada – Maclean's newsmagazine
- » One of the top 5 universities in Canada – Times Higher Education World Reputation Rankings

#### Get a great job

- **» 95% employment rate** 6 months after graduation
- » A+ reputation according to employers - The Globe and Mail

#### Receive the best career preparation

- » Our students rank us #1 in Canada for co-op/internship opportunities among large universities - The Globe and Mail
- » CEOs and corporate recruiters rate us #1 for career preparation - The Globe and Mail



\*PRINCE EDWARD ISLAND

NOVA SCOTIA

CANA

OTTAWA

NIAGARA FALLS

WASHINGTON DC

QUÉBEC CITY

NEW YORK

MONTREAL

USA

BOSTON

NEWFOUNDLAND AND LABRADOR

→ Toronto Kitchener Waterloo

KITCHENER -

ONTARIO



#### Today, countries compete for the best minds. You'll become sought-after talent by studying in Canada.

- World-class education Canada spends more on education than any other country in the G8.
- Prestigious degree a Canadian degree opens doors at home and abroad.
- Work opportunities work on or off campus during your studies and for up to 3 years after graduation.
- Safe, peaceful, and politically stable Canada is one of the best countries in the world in which to live.
- Affordable our tuition fees and the cost of living are lower than in the UK and the USA.

#### City of Waterloo - Idea town

Being developed in our backyard are the BlackBerry<sup>®</sup>, Google enhancements, and other innovative ideas.

Challenged to create a city where technological achievements are created and shared with the world, Waterloo residents are succeeding – the city was named the 2007 World's Most Intelligent Community.

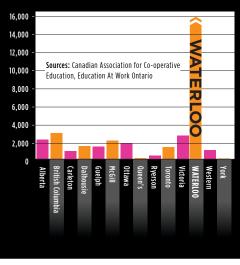
Home to 2 universities and a college, the community is student-focused and has one of the youngest populations in Canada. Waterloo is a safe, mid-sized city located 100 km from Toronto, Canada's largest metropolitan city.

## **Nork** ex 00 Ď rience $\overline{\mathbf{O}}$

#### Number of co-op students at Canadian universities

You Tube

LEARN HOW WATERLOO CO-OP CAN ADVANCI youtube.com/experiencewaterloo



#### 16,000 of our students ARE IN CO-OP



#### We changed the face of education

Waterloo has always been an original. Back in 1957, a local business \_\_\_\_\_ leader had an idea - to create Canada's first co-operative education university - so that students could tie their classroom learning to the real world and also pay for their education.

At the time, the concept was radical. People said it couldn't be done. From that first class of 75 students, Waterloo has become the home of the world's largest co-op program, and more than 16,000 Waterloo students add the co-op advantage to their education each year.

#### Our hands-on work experience program – co-operative education – will get your career off to a great start.

#### As a co-op student, you

- » can try up to 4 to 6 career areas
- » work close to home or around the world
- » develop up to 2 years of work experience
- » master the job search process from résumé writing to interview skills

#### Waterloo founded co-op in Canada and we're experts at it

- » 93% co-op employment rate for 2010-11
- » 15% how much more co-op graduates earn compared to traditional university graduates
- » Potential co-op employers: Barclays Capital, Disney, Apple, Microsoft, and Facebook

#### Our students rank us...

- » #3 in the world opportunity to earn money while I study
- » #6 in the world opportunity to gain work experience as part of my studies
- » Top 20% in the world my studies will help me get a good job
- » Top 20% in the world my professors make themselves available to discuss my career goals and job opportunities

Source: International Student Barometer™

#### Alternate 4-month study and paid work terms

Your co-op schedule depends on your program. These are the 2 most common co-op sequences:

		YEAR	1	Y	EAR 2	2	١	EAR	3	Y	'EAR	4	YEA	<b>R 5</b>
	F	W	S	F	W	S	F	W	S	F	W	S	F	W
EXAMPLE 1	Study	Work	Study	Work	Study	Study								
EXAMPLE 2	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)



EARN \$30,000 TO \$75,000 CAD ON AVERAGE OVER THE COURSE OF YOUR STUDIES 95% of waterloo grads are EMPLOYED WITHIN 6 MONTHS

#### our graduates succeed

#### A great place to continue your studies

With more than 4,000 Masters and PhD students, Waterloo is one of the most research-intensive universities in Canada. You'll also be qualified to pursue graduate and professional programs at other leading universities around the world.

#### Command respect with a Waterloo degree

According to *Canadian Business* magazine "Waterloo produces what Canadian business has always said it wants – smart, motivated, relevant graduates." So go on, do anything you put your mind to – doctor, lawyer, teacher, engineer, entrepreneur, writer, and more.

# living at waterloo

#### Living away from home is full of firsts – first roommate and first experience with independence!

#### 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, St. Paul's
- » Single and shared rooms as well as suite-style (apartment) living

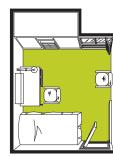
Or live off campus. Our Off-Campus Housing staff can help you find a place close to campus, and you'll have the option of purchasing a meal plan or cooking for yourself.

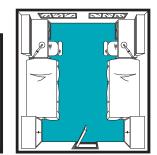
#### **Eating on campus**

When you're hungry, our 18 on-campus eateries offer lots of choice – halal, gluten-free, and vegetarian options – and they open before sunrise during Ramadan.

#### room layouts

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





#### GUARANTEED RESIDENCE FOR ALL FIRST-YEAR STUDENTS

#### The residence for ideas people

Thought of a new way to use technology? Dream about turning it into a business? Need help? Meet Velocity – an innovative take on residence. It's called a dormcubator – where students live together and work on their technology ideas with help from companies like Google, Microsoft, and IBM. So bring your idea and apply to live at Velocity after your first year. velocity.uwaterloo.ca

## Build your résumé and meet new people through a sport, a club, or an international experience.

#### Sports

Varsity teams gowarriorsgo.ca

Co-ed # Malet FemaleiBadminton #FigureBaseballt#FootbBasketballt#Golf #Cheerleading #Ice HeCross-Country#NordiCurling #RugbyField Hockey#Socce

Figure Skating# Football# Golf# Ice Hockey# Nordic Skiing# Rugby# Soccer# Squasht Swimmingtt Tennistt Track and Fieldtt Volleyballtt

**Campus Recreation** – exercise your body through ball hockey, cricket, salsa dancing, soccer, swimming, weight training, yoga, and more!

#### Student government

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

#### Clubs

Choose from 160 clubs: 28 cultural associations, the Gamers Club, the Photography Club, the Concert Band Club, the Dance Pak, or the Capital Markets Group.

#### International opportunities

- » Exchanges Choose from 140 exchanges in 29 countries such as the UK, Iceland, and Thailand.
- » Programs Take a course with overseas fieldwork. Or learn another language – we offer the second largest selection in Canada.
- » Work experience 900 students find a co-op work term overseas every year.

#### student services

We're here to help you when you need it:

- » Academic advisors
- » Tutors right in residence
- » Study skills workshops
- » International Student Office
- » Counselling Services
- » Centre for Career Action
- » Health Services
- » Office for Persons with Disabilities
- » Student Success Office





LEARN HOW JESSICA'S INTERESTS ARE HELPING HER TO HELP OTHERS. VISIT youtube.com/experiencewaterloo You

Tube

#### RECREATION AND LEISURE STUDIES RANKS #1

IN NORTH AMERICA FOR RESEARCH OUTPUT

- THE JACKSON REPORT

#### PSYCHOLOGY RANKS #3 IN NORTH AMERICA

- ASSOCIATION OF STATE AN PROVINCIAL PSYCHOLOGY BOARD

## arts, communication, and social sciences

#### The euro started here

It sparked an economic revolution that transformed Europe – the idea of joining countries under a single currency and economic policy – in short, the euro. Now it's the second most important currency in the world.

Before former Waterloo economics professor Dr. Robert Mundell and his colleagues, Europe hadn't had a common currency since the Roman Empire. For his groundbreaking vision, Mundell earned a Nobel Prize in Economics.

At Waterloo, we dare to see things in a different way. How about you? Explore human nature and society. Look at the world from the past, from another culture, from inside the mind. Learn to communicate your ideas using the tools of the 21st century.

PROGRAMS - Program details: pages 16-19

- » Anthropology
- » Architecture
- » Arts and Business
   Digital Arts Communication\*
   Global Engagement\*
- » Classical Studies
- » Drama
- » Economics
- » English
- Literature
- Literature and Rhetoric
   Rhetoric and Professional Writing
- » Fine Arts
  - Art History and Visual Culture
    Film Studies and Visual Culture
    Studio Practice
- » Geography and Environmental Management
- » Global Business and Digital Arts NEW!
- » History
- » Honours Arts
- » Independent Studies
- » International Development

- » Legal Studies
- » Liberal Studies
- » Knowledge Integration
- » Medieval Studies
- » Music
- » Peace and Conflict Studies
- » Philosophy
- » Planning
- » Political Science
- » Psychology
- » Recreation and Leisure Studies
- » Religious Studies
- » Sexuality, Marriage, and Family Studies
- » Social Development Studies
- » Social Work
- » Sociology
- » Speech Communication
- » Tourism and Parks Management NEW!
- » Women's Studies

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



## business, accounting, and finance

You have a natural dollars and cents approach to problemsolving. A fascination with the way business and money affect knowledge, people, and the world. Ask around. Employers value the combination that Waterloo grads bring to the new economy.

PROGRAMS - Program details: pages 16-19

- » Accounting and Financial Management
- » Actuarial Science
   Finance\*
- » Applied Mathematics

  Economics\*
- » Arts and Business
  International Trade\*
- » Biotechnology/Chartered Accountancy
- » Biotechnology/Economics
- » Business Administration (WLU) and Computer Science (Waterloo) Double Degree
- » Business Administration (WLU) and Mathematics (Waterloo) Double Degree
- » Computational Mathematics
   Economics\*
- » Computer Science
   Business\*
- » Computing and Financial Management
- » Economics

- » Environment and Business
- » Global Business and Digital Arts NEW!
- » Independent Studies
- » Information Technology Management
- » Management Engineering
- » Mathematical Economics
- » Mathematical Finance
- » Mathematical Optimization
- » Mathematical Studies Business\*
- » Mathematics/Business Administration
- » Mathematics/Chartered
- 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.

A CEO at 18

More than half a million Canadian students have attended conferences and workshops run by Impact Entrepreneurship Group. They receive advice from business leaders and learn how to network. But mostly, they're inspired to bring their own business dreams to life.

Impact was Kunal Gupta's big idea. He was only in his first year when he created the student-run, non-profit organization – just one example of the entrepreneurial spirit Waterloo students have always been known for.

At Waterloo, we know that good ideas happen at any age. How about you?



#### LEARN MORE. REQUEST A PROGRAM BROCHURE AT FINDOUTMORE. UWATERLOO.CA.

OVER 300 SPIN-OFF COMPANIES HAVE TIES TO WATERLOO



#### WATERLOO'S CIVIL ENGINEERING RANKS 18TH IN THE WORLD

- HIGHER EDUCATION EVALUATION AND ACCREDITATION COUNCIL OF TAIWAN

#### WATERLOO ENGINEERING

RANKS IN THE TOP 40 IN THE WORLD

- ACADEMIC RANKING OF WORLD UNIVERSITIES



## engineering, architecture, and design

Take things apart. Figure out how they work. Accelerate your curiosity – because Waterloo's hands-on approach means you'll experience the world in a whole new way.

#### PROGRAMS - Program details: pages 16-19

- » Applied Mathematics
- » Architecture
- » Arts and Business
- Digital Arts Communication
- » Chemical Engineering
- » Civil Engineering
- » Computer Engineering
- » Computer Science
- » Electrical Engineering
- » Environmental Engineering
- » Geological Engineering

- » Global Business and Digital Arts NEW!
- » Knowledge Integration
- » Management Engineering
- » Mechanical Engineering
- » Mechatronics Engineering
- » Nanotechnology Engineering
- » Planning
- » Pure Mathematics
- » Software Engineering
- » Systems Design Engineering

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

#### What if ...?

It's a simple question that often leads to incredible results.

What if we could reinforce plastic using straw? That's what one group of Waterloo researchers asked themselves, and that's exactly what they did. And now wheat straw-reinforced plastic is being used in car parts for the Ford Flex sport utility vehicle. This new plastic is stronger, lighter, and easier to recycle – great news for the environment. Plus, farmers get to earn valuable income from their otherwise wasted straw.

At Waterloo, we like to invent stuff. How about you?

Your passionate hope for the future - sustainability. At Waterloo, environmental responsibility has inspired programs for more than 40 years, so you'll find a range of possibilities to create a greener world.

PROGRAMS - Program details: pages 16-19

- » Applied Mathematics Earth Sciences\*
- » Computational Mathematics Earth and Space<sup>\*</sup>
- » Earth Sciences
- » Environment and Business
- » Environment and Resource Studies
- » Environmental Engineering
- » Environmental Science Ecology Geoscience
- » Geography and Aviation
- » Geography and Environmental Management
- » Geological Engineering
- » Geomatics
- » Independent Studies
- » International Development
- » Knowledge Integration
- » Recreation and Leisure Studies
- » Planning
- » Science and Business Environmental Sciences\*
- Hydrogeology
- » Tourism and Parks Management NEW!

You

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

#### Green with innovation

When our students heard that Waterloo's Faculty of Environment was getting a new building, they wanted it to be green. And not simply in colour.

Environment student Nick Soave was one of many students who believed that the building should represent who they are. He met with the building committee and pushed them to create the most sustainable building possible.

The result? A 57,000-square-foot teaching tool. Environment 3 features solar panels, a green roof, and a wetland that treats wastewater. It's on track to become one of only 2 LEED<sup>®</sup> Platinum-rated buildings at a Canadian university.

At Waterloo, we like making the world a better place. How about you?

**DIEGO'S INTEREST IN GAMING GREW INTO** A PASSION FOR CITY DESIGN, SEE HOW AT Tube youtube.com/experiencewaterloo

> LEARN MORE. **REQUEST A PROGRAM BROCHURE** AT FINDOUTMORE.UWATERLOO.CA.

> #1 IN CANADA FOR ADDING SUSTAINABILITY TO BUSINESS, ARCHITECTURE, AND URBAN PLANNING PROGRAMS

> > - CORPORATE KNIGHTS MAGAZINE

A WORLD-

CLASS

CENTRE

environmer sustainabili and

# he buid profession

FIRST UNIVERSITY IN THE WORLD TO CREATE A DEPARTMENT TO STUDY HUMAN MOVEMENT - KINESIOLOGY

#### TOP 10 IN CANADA FOR LIFE SCIENCE AND BIOMEDICINE

– QS WORLD UNIVERSITY RANKING



A TRIP TO AFRICA INSPIRED VICKI TO WANT TO BECOME A DOCTOR. LEARN WHY AT youtube.com/experiencewaterloo You Tube

You're fascinated by the mystery of the connections between health and disease. You plan to use your compassion and abilities to benefit both individuals and entire populations.

» Legal Studies

» Life Sciences

» Mathematics
• Teaching\*

» Optometry

» Pharmacy

» Psychology

Teaching\*

» Social Work

» Sociology

» Pure Mathematics

» Recreation and Sport Business

» Recreation and Leisure Studies

» Therapeutic Recreation

» Sexuality, Marriage, and Family Studies

» Social Development Studies

» Science and Business

» Statistics for Health

\*An optional focus that you can

add to the program listed above it.

» Women's Studies

» Life Physics NEW!

» Medicinal Chemistry

PROGRAMS - Program details: pages 16-19

- » Biochemistry
- » Bioinformatics
- » Biology
- » Biomedical Sciences
- » Computational Mathematics

  Bio-Medical\*
- » 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
- » Independent Studies
- » International Development
- » Kinesiology
- Ergonomics\*
- Human Nutrition\*
- Neurobehavioural Assessment\*
- Pre-Health Professions\*
- » Knowledge Integration

Watching over your heart

Heart disease. Chances are, you have a relative or family friend affected by it. Think how much a heart-attack warning device could help.

Professor Patricia Nieva is leading an international team to build one. Using tiny devices the size of grains of rice, the hand-held monitor would need only a single drop of blood to detect an imminent heart attack. Patients could be aware of a problem before pain sends them rushing to the hospital. Imagine the lives that could be saved!

At Waterloo, we like helping people live longer, healthier lives. How about you?

HEALTH AND HELPING PROFESSIONS » UWATERLOO.CA

## international studies and languages

Your dream is to explore the global village. In books. In person. In another language. You want to experience first-hand the places and cultures you see in the news.

PROGRAMS - Program details: pages 16-19

#### » Arts and Business • Global Engagement\*

- International Trade\*
- » French . Teaching\*
- » German
- » Global Business and Digital Arts NEW!
- » History
   International Relations and Global Governance\*
- » Independent Studies
- » International Development
- » Italian Studies
- » Peace and Conflict Studies
- » Political Science International Relations and
- Global Governance\*
- » Russian and East European Studies
- » Spanish
- » Tourism and Parks Management NEW!

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

#### Bringing water to the world

Technology doesn't always mean high-tech.

Take the Waterloo Pump. In the 1970s, villagers in developing countries needed an affordable and easily fixable water pump. Standard iron or steel pumps were expensive and heavy. Repairs required technical help from outside the community or even outside the country.

Two Waterloo professors created the solution – a simple plastic pump that could be produced and repaired locally. Thirty years later, the Waterloo Pump – not fancy but dependable – is still providing clean water around the globe.

At Waterloo, we see beyond the classroom. How about you?



**#2 IN CANADA** FOR THE VARIETY OF LANGUAGES TAUGHT GAIN OVERSEAS WORK EXPERIENCE 900 WATERLOO CO-OP STUDENTS DO EVERY YEAR

LEARN MORE. REQUEST A PROGRAM BROCHU

AT FINDOUTMORE.UWATERLOO.CA.



KRISTY'S LIFE IN A SMALL TOWN INSPIRED HER TO SEEK A GLOBAL VIEW. HEAR HOW AT youtube.com/experiencewaterloo **1000100010001000100010001000** 

#### WATERLOO HAS MORE TOP-5

FINISHES IN THE PUTNAM MATHEMATICAL COMPETITION THAN BERKELEY, CORNELL, OR STANFORD

> WATERLOO RANKS #1 IN CANADA FOR COMPUTER SCIENCE

- HIGHER EDUCATION EVALUATION & <u>ACCREDITATION CO</u>UNCIL OF TAIWAN

## LEARN

MORE. REQUEST A PROGRAM BROCHURE AT FINDOUTMORE. UWATERLOO.CA.

From the *Da Vinci Code* to space exploration, you get that numbers are the essence of the universe. Surround yourself with the world's top minds in mathematics and computer science.

PROGRAMS - Program details: pages 16-19

- » Actuarial Science • Finance\*
- » Applied Mathematics

  Scientific Computation\*
- » Arts and Business
   Digital Arts Communication\*
- » Bioinformatics
- » Business Administration (WLU) and Computer Science (Waterloo) Double Degree
- » Business Administration (WLU) and Mathematics (Waterloo) Double Degree
- » Combinatorics and Optimization
- » Computational Mathematics
- » Computational Science
- » Computer Engineering
- » Computer Science
  - Bioinformatics\*
  - Business\*
  - Digital Hardware\*
  - Health Informatics\*
  - Software Engineering\*
- » Computing and Financial Management

- » Geomatics
- » Global Business and Digital Arts NEW!

You Tube

JULIANNE IS PURSUING WHAT

SHE LOVES - MATH. FIND OUT WHY AT

youtube.com/experiencewaterloo.

- » Health Studies
- Health Informatics\*
- » Information Technology Management
- » Mathematical Economics
- » Mathematical Finance
- » Mathematical Optimization
- » Mathematical Physics
- » Mathematical Studies
- » Mathematics
- Teaching\*
- » Mathematics/Business Administration
- » Mathematics/Chartered Accountancy
- » Mathematics/Financial Analysis and Risk Management
- » Nanotechnology Engineering
- » Pure Mathematics
- Teaching\*
- » Software Engineering
- » Statistics
- » Statistics for Health

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

The \$28 billion idea

It pays to come up with something new. Like AdWords, the idea that generates 99% of Google's income.

Waterloo grad Eric Veach and a colleague from Stanford University thought of a new way to sell Internet advertising when they were only in their 20s. Advertisers bid for Internet space, and the winner pays the second highest bidder's bid, plus one penny. Google wasn't making real money before AdWords – last year it earned them \$28 billion.

At Waterloo, we believe it all starts with an idea. How about you?



## physical, life, and health sciences

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 16-19

- » Biochemistry
- » Bioinformatics
- » Biology
- » Biomedical Sciences
- » Biotechnology/Chartered Accountancy
- » Biotechnology/Economics
- » Chemistry
- » Computational Science
- » Earth Sciences
- » Environmental Science
- Ecology\*
   Geoscience
- » Health Studies
- Gerontology\*
- Health Informatics\*
- Health Research\*
- Pre-Health Professions\*
- » Honours Science
- » Independent Studies
- » Kinesiology
  - Ergonomics\*
  - Human Nutrition\*
  - Neurobehavioural Assessment\*
- Pre-Health Professions\*
- » Knowledge Integration
- » Life Physics NEW!
- » Life Sciences
- » Materials and Nanosciences NEW!
- » Mathematical Physics
- » Medicinal Chemistry
- » Nanotechnology Engineering
- » Optometry
- » Pharmacy
- » Physical Sciences
- » Physics
- » Physics and Astronomy NEW!
- » Psychology
- » Science and Aviation
- » Science and Business
   Biotechnology\*
   Hydrogeology\*
- » Statistics for Health

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

#### Subatomic drug delivery

Picture chicken wire. Roll it into a tube and load it with medicine. Then shrink it a million times and watch it target only the part of the body that's sick.

That's what Pharmacy professor Marianna Foldvari is working on. She hopes that carbon nanotubes – 1,000 times smaller than a human hair – will deliver a precise amount of drug to the exact spot it's needed. That's great news for cancer patients!

At Waterloo, we like to use small science in big ways. How about you?

You Tube NAVJOT WANTS TO ENGINEER NEW MEDICINES TO CURE DISEASES SUCH AS CANCER. LEARN MORE AT youtube.com/experiencewaterloo

#### WATERLOO RANKS #5 IN CANADA FOR PHYSICS

HIGHER EDUCATION EVALUATION AND ACCREDITATION COUNCIL OF TAIWAN

#### WATERLOO RANKS #6 IN CANADA FOR CHEMISTRY

HIGHER EDUCATION EVALUATION AND ACCREDITATION COUNCIL OF TAIWAN



## 100 programs to choose from

#### W | ACCOUNTING AND FINANCIAL MANAGEMENT (E), BAFM, CO-OP

#### **Faculty of Arts**

Build strengths in both accounting and finance. Benefit from a continuous learning environment, co-op, and the opportunity to pursue a CA, CMA, or CFA. Gain professionalism, practical experience, and a global perspective to become a leader in your field.

#### ACTUARIAL SCIENCE (M), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

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

#### ANTHROPOLOGY (M), BA, CO-OP/REGULAR Faculty of Arts

Gain a broad understanding of what it means to be human. Anthropologists explore contemporary cultural issues such as violence and media, study human and primate evolution, and use archaeology to learn about past cultures. Gain field experience in the Mediterranean, the Arctic, or Africa.

#### **APPLIED MATHEMATICS (M)**, BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

Combine math with computer science, engineering, and physics to solve communication and control system problems. Work in fields such as quantum computing, cosmology, aerospace or nuclear engineering, or biomedicine. Specialize in: Biology, Economics, Earth Sciences, Physics, Scientific Computation

#### ARCHITECTURE (E), BAS, CO-OP Faculty of Engineering

Design the buildings and spaces that enhance the quality of the world. Our internationally recognized school offers superb design studios, digital media labs, cultural history courses, a study term in Rome, and co-op jobs in Canada and abroad.

#### ARTS - HONOURS ARTS (E), BA, REGULAR Faculty of Arts

With 27 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/or languages and cultures. See page 25 for available majors. Co-op is available in some majors.

#### W | ARTS AND BUSINESS (E), BA, CO-OP/REGULAR

#### **Faculty of Arts**

Partner an arts-related discipline with business courses such as management, economics, marketing, and entrepreneurship. Choose co-op and be part of the world's largest liberal arts co-op program. Specialize: Digital Arts Communication, Global Experience, International Trade. See page 25 for a list of majors.

#### **BIOCHEMISTRY (M)**, BSc, CO-OP/REGULAR Faculty of Science

Concentrated biology and chemistry courses along with extensive lab experience will prepare you for a career in forensic science, pharmaceuticals, medical diagnostics, agriculture, microbiology, biotechnology, or genetic engineering. BIOINFORMATICS (E), BCS OR BSc, CO-OP/REGULAR Faculty of Mathematics

Combine biology with the power of computer science to explore complex scientific data. Search for new therapies for diseases or explore areas such as the 3 billion DNA bases of the human genome. Courses include mathematics, computer science, biochemistry, biology, and chemistry.

#### BIOLOGY (M), BSc, CO-OP/REGULAR Faculty of Science

Prepare for a career in laboratory and field research, environmental assessment, the health professions, education, or industry. Introductory courses in genetics, cell biology, and microbiology provide a foundation for a broad selection of senior-level courses.

#### BIOMEDICAL SCIENCES (M), BSc, REGULAR Faculty of Science

This flexible program provides the requirements for health-care professional programs such as medicine, optometry, pharmacy, dentistry, physiotherapy, chiropractic, occupational therapy, and forensic science.

#### W | BIOTECHNOLOGY/CHARTERED ACCOUNTANCY (E), BSc, CO-OP Faculty of Science

Combine biology, biochemistry, and biotechnology with financial management, accounting, and taxation to prepare for work with intellectual property, high-tech investment, and scientific discovery. Upon graduation, continue into the Master of Accounting program as your next step in becoming a Chartered Accountant.

#### W | BIOTECHNOLOGY/ECONOMICS (E), BSc, CO-OP

#### **Faculty of Science**

Biotechnology is used in medical diagnostics, therapeutics, vaccines, environmental pollution monitoring, bioremediation, and agricultural productivity. Combine biotechnology courses with economics and business studies.

#### W BUSINESS ADMINISTRATION (WLU) AND COMPUTER SCIENCE (WATERLOO) DOUBLE DEGREE (E), BCS AND BBA, CO-OP Faculty of Mathematics

Both computer science and business administration degrees are highly valued in today's information-rich society. In just 5 years, earn a co-op Bachelor of Computer Science from Waterloo and a Bachelor of Business Administration from Wilfrid Laurier University.

#### W BUSINESS ADMINISTRATION (WLU) AND MATHEMATICS (WATERLOO) DOUBLE DEGREE (E), BMATH AND BBA, CO-OP Faculty of Mathematics

Develop superior analytical, problem-solving, and technical skills in the most technical business program in Canada. Earn a Bachelor of Mathematics from Waterloo and a Bachelor of Business Administration from Wilfrid Laurier University in just 5 years.

#### CHEMICAL ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Work with energy, materials, and the environment to design, implement, and supervise processes in which matter is transformed. Explore areas such as biotechnology, pollution control, materials manufacturing, energy production, and health care in one of North America's top programs.



- (M) = Major you apply through an entry-level program and select your major later.
- **W** | = One-of-a-kind program in Canada

#### CHEMISTRY (M), BSc, CO-OP/REGULAR Faculty of Science

Every substance in today's world results from a chemical process, and all living organisms depend on chemical reactions for survival. Our program qualifies you for membership in the Canadian Society for Chemistry and the Chemical Institute of Canada.

#### CIVIL ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Manage, design, and construct city and rural infrastructure, transportation systems, and pollution-control projects. Specialize in areas such as water resource, structural, transportation, or geotechnical engineering.

#### CLASSICAL STUDIES (M),

#### BA, CO-OP/REGULAR

Faculty of Arts

Understand the history, culture, literature, religion, philosophy, art, and society of ancient Greece and Rome. Learn enough ancient Greek or Latin to study ancient texts. Benefit from guest speakers, films, field trips, and studyabroad opportunities.

#### COMBINATORICS AND OPTIMIZATION (M), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

Combinatorics is the math of finite structures; optimization improves efficiency. Take courses in enumeration, graph theory, and linear programming to model and solve scheduling and management problems in cryptography, the optimization of flight schedules, and business and scientific operations.

#### W | COMPUTATIONAL MATHEMATICS (M), BMATH, CO-OP/REGULAR Faculty of Mathematics

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 computers to solve industrialsized math problems. Specialize in: Bio-Medical, Earth and Space, Economics

#### **COMPUTATIONAL SCIENCE (M)**, BSc, CO-OP/REGULAR

#### Faculty of Science

Combine science, math, and computer science. Acquire the skills and knowledge to meet the challenges associated with modern atmospheric, ecological, genomic, proteomic, environmental, and research problems.

#### COMPUTER ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Apply algorithm and digital design principles to build and test computer software or hardware components for information processing, communication, and storage. You'll work with larger engineered systems and in distributed, networked environments.

#### COMPUTER SCIENCE (E), BCS OR BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

Study computers, software, and their application to challenging problems. At Canada's top school of computer science, explore areas such as artificial intelligence, bioinformatics, networks, databases, quantum computing, graphics, security, and software engineering. See majors page 25. Specialize in: Bioinformatics, Business, Digital Hardware, Health Informatics, Software Engineering

#### W | COMPUTING AND FINANCIAL MANAGEMENT (E), BCFM, CO-OP

Faculty of Arts/Faculty of Mathematics Study computer science and math along with finance and accounting. Learn about software development and financial applications in the banking, insurance, investment, and risk management industries. CFM helps prepare you to write the professional exams for the Chartered Financial Analyst (CFA) designation.

#### DRAMA (M), BA, CO-OP/REGULAR Faculty of Arts

Explore traditional to technology-based theatre in one of Canada's most performance-intensive programs. Study acting, dramatic literature, performance studies, theatre management, as well as set design, lighting, stage management, voice technique, and audition techniques.

#### EARTH SCIENCES (M), BSc, CO-OP/REGULAR Faculty of Science

Study the atmosphere, soil, the environment, and water. Supplement hands-on learning in labs with field trips to geologically significant locations. This is the only Ontario program that meets the academic requirements of the Association of Professional Geoscientists of Ontario.

#### ECONOMICS (M), BA, CO-OP/REGULAR Faculty of Arts

Learn how wealth is produced, distributed, and consumed and how it shapes society, politics, and culture. Courses cover finance, public policy, and international economics. Specialize in: Econometrics, Finance, Mathematical Economics, and Public Policy

#### ELECTRICAL ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Apply electronic and electromagnetic optical design principles to build and test analog or digital devices, circuits, and systems for the processing of communication, for the storage of information, and for automation and robotics.

#### ENGLISH (M), BA, CO-OP/REGULAR Faculty of Arts

Examine English literature, language, and digital communication. Develop analytical, evaluative, writing, and digital skills. Choose Literature, Rhetoric and Professional Writing, or Literature and Rhetoric as your major. Specialize in: Digital Media Studies, English Literature in a Global Context

#### W | ENVIRONMENT AND BUSINESS (E), BES, CO-OP

#### **Faculty of Environment**

Learn to develop green businesses and to help companies reduce their environmental footprint. Study finance, accounting, and law along with ecology, environmental economics, green marketing, environmental management, and corporate responsibility.

#### ENVIRONMENT AND RESOURCE STUDIES (E), BES, CO-OP/REGULAR

#### **Faculty of Environment**

Make the world greener with this flexible program. From case studies and community projects, learn to create effective solutions by studying the human, environmental, and economic impact of the challenges facing the globe.

#### ENVIRONMENTAL ENGINEERING (E), BASc, CO-OP

#### Faculty of Engineering

Protect and enhance the environment by using engineering principles to learn about air, water, and soil systems and to study pollution prevention, water management and treatment, sewage treatment, soil remediation, and biotechnology.

#### ENVIRONMENTAL SCIENCE (E), BSc, CO-OP/REGULAR

#### **Faculty of Science**

Use your lab experience and science studies to understand the challenges facing our environment. After first year, specialize in either Ecology or Geoscience, and prepare for a career in the consulting, management, engineering, or government sector.

#### FINE ARTS (M), BA, CO-OP/REGULAR Faculty of Arts

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

#### FRENCH (M), BA, CO-OP/REGULAR Faculty of Arts

Pursue a career using French or improve your language skills. Include a year studying in Québec or France or choose the Teaching Specialization to add a Bachelor of Education.

#### W | GEOGRAPHY AND AVIATION (E), BES, REGULAR

#### **Faculty of Environment**

Earn a Bachelor of Environmental Studies while completing hands-on flight training for your Commercial Pilot Licence. Learn to interpret tourism trends, weather patterns, and land formations; read multi-layer maps; and use Global Positioning Systems (GPS).

#### GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT (M), BA, REGULAR, OR (E), BES, REGULAR OR CO-OP

Faculty of Arts/Faculty of Environment Study the land, its physical forms, and its relationship to humans. In one of Canada's largest geography programs, you'll learn about climate change, geographic information systems, and economic development. Field trips and the opportunity to study abroad enhance your studies.

#### GEOLOGICAL ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Apply knowledge of geology and earth materials to the exploration and production of natural resources, construction in soils and rocks, and hazardous waste disposal. Develop engineering design and problem-solving skills and get a solid background in geological sciences. One of only 2 such programs in Ontario.

#### GEOMATICS (E), BES, CO-OP/REGULAR Faculty of Environment

Geomatics uses the power of computers to solve environmental problems. Develop expertise in satellite remote sensing, computer programming, and geographic information systems, and pursue careers in market research, emergency route design, and research into climate change and natural disasters.

#### GERMAN (M), BA, CO-OP/REGULAR Faculty of Arts

Combine German language, communications, and cultural studies. Enhance your experience by studying in Germany.

#### NEW! GLOBAL BUSINESS AND DIGITAL ARTS, (E), BA, REGULAR Faculty of Arts

Lead business into the future using digital media. Study cross-cultural communication, emerging digital media technologies, and global economies. Enhance your studies with a paid practicum. Spend 2 years at the Waterloo campus and then 2 years at our digital media campus in nearby Stratford.

#### HEALTH STUDIES (E), BSc, CO-OP/REGULAR

#### **Faculty of Applied Health Sciences**

Prepare for a rewarding career in health by learning strategies to prevent disease and promote health for individuals and communities. Choose courses required for professional health programs, such as medicine. Specialize in: Gerontology, Health Informatics, Health Research, Pre-Health Professions

HISTORY (M), BA, CO-OP/REGULAR Faculty of Arts

## Explore the past to make sense of today's complex world. Classes and small discussion groups emphasize modern, post-17th century Canadian, American, European, and international history. Specialize in: International Relations and Global Governance

#### W | INDEPENDENT STUDIES (E), BIS, REGULAR Faculty of Arts

Discover the rewards of self-directed research in either a 3- or 4-year program. Guided by academic advisors, you'll set goals, report on your progress, and develop a formal research project. Employers will value your organizational skills. self-discipline. and motivation.

#### **INFORMATION TECHNOLOGY MANAGEMENT** (M), BMATH, CO-OP/REGULAR

#### Faculty of Mathematics

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

#### INTERNATIONAL DEVELOPMENT (E), BES. REGULAR

#### Faculty of Environment

Learn to create culturally, environmentally, and financially responsible approaches to development problems. To prepare for your 8-month international placement, you'll study a second language and develop business skills.

#### ITALIAN STUDIES (M), BA, REGULAR Faculty of Arts

Learn the language of art, music, and la dolce vita. Study one of the foremost cultures and literatures of the western world. Courses are taught in Italian and English, and you can study in Italy for up to a year.

#### KINESIOLOGY (E), BSc, CO-OP/REGULAR Faculty of Applied Health Sciences

Explore the science of human movement and learn to prevent, assess, and treat movementrelated illness and injury. Choose courses required for professional health programs. Specialize in: Ergonomics, Human Nutrition, Neurobehavioural Assessment, Pre-Health Professions

#### W | KNOWLEDGE INTEGRATION (E), BKI, REGULAR

#### **Faculty of Environment**

In this unique arts and science program, combine your strengths through design projects, an international field trip, the Museum Course, and a research project. You'll discover, design, and develop solutions to complex real-world problems.

#### LEGAL STUDIES (M), BA, CO-OP/REGULAR Faculty of Arts

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 can explore it as a career option.



(E) = Entry-level program - you apply directly through OUAC. See page 27.
 (M) = Major - you apply through an entry-level program and select your major later.
 W | = One-of-a-kind program in Canada

#### LIBERAL STUDIES (M), BA, REGULAR Faculty of Arts

Study a broad range of interests in Arts rather than selecting one major. If you're interested in Liberal Studies, apply to Honours Arts and discuss Liberal Studies with your academic advisor in first year.

#### NEW! LIFE PHYSICS (M), BSc, CO-OP/REGULAR Faculty of Science

If you enjoy biology and physics and are interested in health-related careers, this program will prepare you for medical professions that harness the power of physics, such as radiation oncology and medical imaging.

#### LIFE SCIENCES (E), CO-OP/REGULAR Faculty of Science

Apply to this program if you'd like to study Biochemistry, Biology, Biomedical Sciences, Life Physics, or Psychology.

#### MANAGEMENT ENGINEERING (E), BASc, CO-OP

#### **Faculty of Engineering**

Design, implement, and manage systems to improve efficiency in manufacturing, telecommunications, banking, consulting, and health care. Study core engineering tools in decision-making, operations planning, and information technology.

#### MATHEMATICAL ECONOMICS (M), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

Much of economic theory is expressed as mathematical models, and many advances in mathematics are derived from problems in economics. Prepare for graduate school or a career in banking, government, or industry.

#### MATHEMATICAL FINANCE (M), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

This major is the most advanced undergraduate finance program in the world, designed for students with elite mathematical abilities who wish to pursue finance combined with pure math.

#### MATHEMATICAL OPTIMIZATION (M), BMATH, CO-OP/REGULAR

**Faculty of Mathematics** 

Prepare for a career in manufacturing, transportation, banking, or communications. Mathematical modeling, real-world case studies, and courses in optimization, probability, statistics, and computer science are combined with courses in business, economics, and management science.

#### MATHEMATICAL PHYSICS (M),

BMATH OR BSc, CO-OP/REGULAR Faculty of Mathematics/Faculty of Science

Prepare for graduate studies or a career in the semi-conductor 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.

#### MATHEMATICAL STUDIES (M), BMATH, CO-OP/REGULAR

#### Faculty of Mathematics

Mathematics is the foundation of commerce, computing, engineering, and scientific inquiry. As part of the world's largest faculty of mathematics, you can specialize in one discipline after first year or continue to sample courses from many areas. Specialize in: Business

#### MATHEMATICS (E), CO-OP/REGULAR Faculty of Mathematics

Apply to this program if you enjoying the language of numbers, symbols, and math. You'll have the choice to focus on one of 13 mathematics majors that range from Actuarial Science to Statistics. Depending on your major, co-op is available or possibly required.

#### W | MATHEMATICS/BUSINESS ADMINISTRATION (E), BMATH, CO-OP/REGULAR Faculty of Mathematics

Combine courses in math and computer science with business and economics courses from Wilfrid Laurier University. Focus your studies by choosing Information Technology Management or Mathematical Economics in second year.

#### W | MATHEMATICS/CHARTERED ACCOUNTANCY (E), BMATH, CO-OP Faculty of Mathematics

Earn a Bachelor of Mathematics as you prepare for a career as a Chartered Accountant. Combine workplace experience with studies in math, accounting, and computing. Specialize in: Actuarial Science, Finance, Information Systems Management

#### W | MATHEMATICS/FINANCIAL ANALYSIS AND RISK MANAGEMENT (E), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

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 the professional exams.

#### MATHEMATICS/TEACHING (WATERLOO/ QUEEN'S) (M), BMATH and BEd, CO-OP

#### **Faculty of Mathematics**

Share your love of math – become an Ontario secondary school mathematics teacher. Earn a BMath from Waterloo and a Bachelor of Education from Queen's University. Combine your math, statistics, and computer science courses with practical classroom experience.

#### NEW! MATERIALS AND NANOSCIENCES (M), BSc, CO-OP/REGULAR Faculty of Science

Create materials and machines the size of human cells by manipulating individual atoms and molecules. Learn about composite materials, ceramics, semiconductor materials, fuel cells, energy storage devices, solar cells, and more.

#### MECHANICAL ENGINEERING (E), BASc, CO-OP Faculty of Engineering

Study energy and anything that moves. Design solutions that meet economic and humanitarian needs and contribute to a sustainable future by working with solar, wind, and alternative fuels. Discover the power of fluids, the world of robotics, and how lightweight materials and ingenious mechanisms work.

#### MECHATRONICS ENGINEERING (E), BASc, CO-OP

#### **Faculty of Engineering**

Combine mechanical, electrical, and systems design engineering into the design of computer-controlled electro-mechanical systems. Learn about robots, intelligent vehicles, and micro-electro-mechanical systems (MEMS).

#### MEDICINAL CHEMISTRY (M), BSc, CO-OP/REGULAR

#### Faculty of Science

Medicinal chemistry is the science of drug discovery. You'll be trained as a chemist and gain the skills for a career that involves the design, synthesis, and evaluation of potential drugs.

#### MEDIEVAL STUDIES (M),

#### BA, CO-OP/REGULAR

Knowledge of the Middle Ages is vital to understanding modern civilization and represents an important part of our heritage. Courses include history, Latin, modern European languages, fine arts, philosophy, religious studies, and classical studies.

MUSIC (M), BA, CO-OP/REGULAR

#### Faculty of Arts

Study history, theory, studio, and performance, and explore music's relationships to technology, film, gender, and psychology. Enrich your experience by studying in England or South Africa.

#### W | NANOTECHNOLOGY ENGINEERING (E), BASc, CO-OP

#### **Faculty of Engineering**

Apply ideas from chemistry, quantum physics, biology, and electronics to build structures at the nano-metre scale. Use mathematics, science, and engineering to work on sensors, electronics, biosystems, and advanced materials.

#### W | OPTOMETRY, OD, REGULAR

#### Faculty of Science

Optometrists help preserve and enhance vision. After 3 years of university science, you can apply to Canada's only English-language school of optometry. Learn the sciences of ocular health and disease, optics, and vision, and apply your knowledge in clinical settings.

#### PEACE AND CONFLICT STUDIES (M),

#### BA, CO-OP/REGULAR

Faculty of Arts

Canada's first peace studies program connects you to unconventional, nonviolent ways to transform conflict and work for positive social change. Explore conflict resolution, human rights, and international development. Think critically about peace and culture. Gain experience through an internship locally or abroad.

#### W | PHARMACY, BScPhm, CO-OP

#### **Faculty of Science**

Become a health-care leader and medication expert. Explore many areas, such as business and health informatics. At least 2 years of university science studies are required.

#### PHILOSOPHY (M), BA, CO-OP/REGULAR Faculty of Arts

Read the works of the great philosophers, analyze their arguments, and assess their value. Learn to think clearly in order to analyze ideas and arguments, and prepare to debate issues in politics, public policy, business, and industry.

#### PHYSICAL SCIENCES (E), CO-OP/REGULAR Faculty of Science

Explore, discover, and investigate the natural laws and processes of non-living matter in one of 9 majors listed on page 25, which range from Chemistry to Physics and Astronomy.

#### PHYSICS (M), BSc, CO-OP/REGULAR Faculty of Science

In one of Canada's most comprehensive physics programs, use physics to learn about the world, from tiny subatomic particles to the largest galaxies. Specialize in: Astrophysics, Applied Physics, Biophysics, Mathematical Physics, Quantum Computing

#### NEW! PHYSICS AND ASTRONOMY (M), BSc, CO-OP/REGULAR

Faculty of Science

Do you look up at night and dream of stars and galaxies? Learn from professors who are using new satellites and telescopes to explore space. Pursue careers in astronomy, aerospace, experimental particle physics, remote sensing, and defence.

#### PLANNING (E), BES, CO-OP Faculty of Environment

Design our communities. As a graduate from Canada's most prestigious school of planning, you'll tackle traffic congestion, preserve cities' green spaces, plan the look and feel of urban centres, and develop new residential areas.

#### POLITICAL SCIENCE (M), BA, CO-OP/REGULAR Faculty of Arts

Explore the exercise of political power, global politics and governance, citizens and their relationship to governments, and political theory. Specialize in: International Relations and Global Governance

#### PSYCHOLOGY (M), BA OR BSc, CO-OP/REGULAR Faculty of Arts/Faculty of Science

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

#### PURE MATHEMATICS (M), BMATH, CO-OP/REGULAR

#### **Faculty of Mathematics**

Study the power, elegance, "how," and "why" of mathematics. Study algebra, number theory, analysis, geometry, topology, logic, and functional equations. Specialize in: Finance, Math/Teaching

#### W | RECREATION AND SPORT BUSINESS (M), BA, CO-OP/REGULAR

#### **Faculty of Applied Health Sciences**

Complement your expertise in recreation and sport with transferable business skills. Courses from Waterloo and Wilfrid Laurier University's School of Business & Economics provide background in marketing, human resources, communications, and finance.

#### RECREATION AND LEISURE STUDIES (E), BA, CO-OP/REGULAR

#### **Faculty of Applied Health Sciences**

The benefits of leisure are immense. Learn to plan, deliver, and manage recreation and sport services and help people make the most of their leisure time. Choose from 4 majors listed on page 25.

#### RELIGIOUS STUDIES (M), BA, CO-OP/REGULAR Faculty of Arts

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.

#### RUSSIAN AND EAST EUROPEAN STUDIES (M), BA, CO-OP/REGULAR

Faculty of Arts Discover a vibrant and diverse part of the world through language courses and seminars on literature, culture, history, and politics,

as well as the opportunity to study in Russia.

#### SCIENCE - HONOURS SCIENCE (E), BSc, REGULAR Faculty of Science

Choose this program if your love of science takes you in many directions. Focus your

degree in one of 15 majors listed on page 25 or complete your degree without specializing.

#### W | SCIENCE AND AVIATION (E), BSc, REGULAR Faculty of Science

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

#### W | SCIENCE AND BUSINESS (E), BSc, CO-OP/REGULAR

#### **Faculty of Science**

This innovative program provides a strong grounding in science along with courses in accounting, economics, marketing, computing, statistics, and human resources. Choose from one of 7 areas of study or complete your degree without specializing.

#### W | SEXUALITY, MARRIAGE, AND FAMILY STUDIES (M), BA, CO-OP/REGULAR Faculty of Arts

Understanding sexuality, parenting and family, and relationships is fundamental to understanding ourselves. This is the only program available that focuses equally on sexuality, marriage, and family studies and integrates courses in anthropology, English, psychology, religious studies, sociology, and women's studies.

#### W | SOCIAL DEVELOPMENT STUDIES (E) (M), BA, REGULAR

#### **Faculty of Arts**

Take psychology, sociology, social work, and social science courses to prepare for a career in social work, education, counselling, public service, human resources, or law. Study the human condition in relation to social institutions. Apply through Renison University College if you wish to begin this major in first year.

#### SOCIAL WORK, BSW, REGULAR Renison University College

Obtain Canada's most integrated post-BA social work education through academic courses and a community-based field practicum. Learning is guided by our mission of promoting social justice and community service. A BA is required for admission.

#### SOCIOLOGY (M), BA, CO-OP/REGULAR Faculty of Arts

The study of group life, sociology deals with how people organize and understand relationships. Examine age, class, ethnicity, religion, gender, criminality, education, work, social change, and politics. Specialize in: Crime and Deviance, Business and Technology

#### SOFTWARE ENGINEERING (E), BSE, CO-OP

Faculty of Engineering/Faculty of Mathematics Combine mathematics, engineering, and computer science to study the software development process, project management, and technical documentation. Learn to create and maintain complex software systems for telecommunications, computer graphics, scientific computing, and financial systems.

#### SPANISH (M), BA, CO-OP/REGULAR Faculty of Arts

Study Spanish and Latin American literature, culture, and history. Take part in an exchange to Spain or Latin America or add a Diploma in Spanish-English Translation – one of only 2 diplomas of this kind in Canada.

#### **W | SPEECH COMMUNICATION (M)**, BA, CO-OP/REGULAR

#### Faculty of Arts

Canada's only honours program in the theories and practice of human communication. Discover how communication creates meaning in our world by encouraging creative, collaborative, and critical engagement. Enjoy a career in public relations, human relations, teaching, broadcasting, or marketing.

#### **STATISTICS (M)**, BMATH, CO-OP/REGULAR **Faculty of Mathematics**

Statistics is the science of drawing reliable conclusions from data. Learn about research methods and statistical applications in business, medicine, epidemiology, industrial design, pattern recognition, and artificial intelligence.

#### STATISTICS FOR HEALTH (M), BMATH, CO-OP Faculty of Mathematics

Effective healthcare research teams need members who have strong quantitative and data-based decision-making skills. This program emphasizes the statistical elements of research in clinical, public, and population health.

#### SYSTEMS DESIGN ENGINEERING (E), BASc. CO-OP

#### **Faculty of Engineering**

In our most flexible engineering program, you'll learn to use a multidisciplinary approach to define, analyze, and solve problems wherever humans interact with manufactured systems. Apply engineering principles to environmental systems, robotics, and computer and interface design.

#### NEW! TOURISM AND PARKS MANAGEMENT (M), BA, CO-OP/REGULAR

#### Faculty of Applied Health Sciences Prepare for a career in one of the world's largest industries – tourism and outdoor recreation. Using Canada and international destinations as case studies would explore the complexities

Using Canada and international destinations as case studies, you'll explore the complexities of planning, managing, and funding parks and tourism. You'll also look at social, economic, and environmental impacts of this industry.

#### THERAPEUTIC RECREATION (M), BA, CO-OP/REGULAR

#### **Faculty of Applied Health Sciences**

Assess the needs of people facing physical, cognitive, emotional, and/or social challenges in both health care and community-based settings, and plan inclusive leisure opportunities for them.

#### WOMEN'S STUDIES (M),

#### BA, CO-OP/REGULAR Faculty of Arts

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.

## international admission

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 25.

PROGRAM (APPLY TO)/SYSTEM OF STUDY	
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. <b>NOTE: Std XII</b> = Standard XII; <b>min</b> = minimum final grade; <b>overall</b> = overall minimum final average.
APPLIED HEALTH SCIENCES	
Health Studies Regular and co-op	Std XII Chemistry and Std XII Biology, min 75% in each. Overall 80% Std XII.
Kinesiology Regular and co-op	Std XII Mathematics and Std XII Chemistry, min 75% in each. One of Std XII Physics or Std XII Biology, min 75%. Overall 80% Std XII.
Recreation and Leisure Studies Regular and co-op	Std XII English, min 75%. Overall 80% Std XII.
ARTS	
Accounting and Financial Management* Co-op only	Std XII English, min 80%. Std XII Mathematics, min 70%. Overall 85% Std XII.
Arts and Business Regular and co-op	Std XII English, min 75%. Overall 80% Std XII.
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 80%. All Std XII courses: min 80%.
Global Business and Digital Arts Regular	Std XII English, min 80%. Overall 80% Std XII.
Honours Arts (Waterloo, Renison, St. Jerome's), Independent Studies* (Waterloo), Social Development Studies (Renison) Regular	Std XII English, min 75%. Overall 80% Std XII.
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.
Chemical, Civil, Computer, Electrical, Environmental, Geological, Management, Mechanical, Mechatronics, Nanotechnology, Software*, 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 80% in the required courses.
ENVIRONMENT	
Environment and Business Co-op only	Std XII English, min 75%. Overall 80% Std XII.
Environment and Resource Studies, Geography and Environmental Management Regular and co-op	Std XII English, min 75%. Overall 80% Std XII.
Geography and Aviation* Regular	Std XII Mathematics and Std XII English, min 75% 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 75% in each. Overall 80% Std XII.
International Development Regular	Std XII Mathematics or Std XII Science, min 75%. Std XII English, min 75%. Overall 80% Std XII.
Knowledge Integration Regular	Std XII Mathematics, Std XII English, and one Std XII Science course, min 80% in each. Overall 80% Std XII.
Planning Co-op only	Std XII English, min 80%. Overall 80% Std XII.
MATHEMATICS	
Bioinformatics Regular and co-op	Std XII Mathematics, min 85%. Std XII English. Two of Std XII Chemistry, Std XII Biology, or Std XII Physics, min 85% in each. All Std XII courses: min 80%.
Business Administration (WLU) and Computer Science (Waterloo), Business Administration (WLU) and Mathematics (Waterloo) – Double Degrees Co-op only	Std XII Mathematics, min 90%. Std XII English. One other Std XII course, min 90%. All Std XII courses: min 85%.
Computer Science, Mathematics, Mathematics/Business Administration, Mathematics/Financial Analysis and Risk Management 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%.
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 80%. All Std XII courses: min 80%.
Mathematics/Chartered 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%.
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 80% in the 5 required courses.
SCIENCE	
Biotechnology/Chartered Accountancy*, Biotechnology/ Economics Co-op only; Environmental Science, Life Sciences, Physical Sciences, Science and Business Regular and co-op;	Std XII Mathematics, min 75%. Std XII English, min 75%. Two of Std XII Biology, Std XII Chemistry, or Std XII Physics. One other Std XII course. Overall 80% including required courses.

20

21

## requirements

INTERNATIONAL BACCALAUREATE SYSTEM	AMERICAN SYSTEM
IB diploma, 28 total (excluding Diploma points). For programs listing only HL English A1, the HL English A2 is considered on a case-by-case basis. <b>NOTE: HL</b> = Higher Level; <b>SL</b> = Standard Level; <b>min</b> = minimum final grade; <b>total</b> = 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. <b>NOTE: min</b> = minimum final grade; <b>average</b> = minimum final overall Grade 12 average.
HL Chemistry and HL Biology, min 5 in each. Total 30.	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.	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 A1, min 4 or SL English A1, min 5.	Grade 12 English, min 75%. Average 85%.
HL English A1, min 4 or SL English A1, min 5. HL Mathematics (Math Studies not acceptable). Total 30.	Grade 12 English, min 80%. AP Calculus and Algebra (Pre Calculus). Average 85%.
HL English A1, min 4 or SL English A1, min 5.	Grade 12 English, min 75%. Average 85%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL English A1, min 4 or SL English A1, min 5.	AP Calculus exam, min 4. Grade 12 English, min 75%. Average 90%.
HL English A1, min 4 or SL English A1, min 5.	Grade 12 English, min 80%. Average 85%.
HL English A1, min 4 or SL English A1, min 5.	Grade 12 English, min 75%. Average 85%.
Mathematics and Physics (HL recommended), min 5 in each. SL English A1, min 5. Two other HL or SL courses, min 5 in each.	AP Calculus, AP Physics (or 2 high school Physics courses when AP is unavailable), Algebra (Pre-Calculus), min 70% in each. Grade 12 English, min 75%, and two other Grade 12 courses. SAT I with a score of 1200. Average 85%.
Mathematics and Physics (HL recommended), min 5 in each. Chemistry and English A1, min 5 in each. One other HL or SL course, min 5.	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 70% in each. Average 85% in the 6 required courses.
HL English A1, min 4 or SL English A1, min 5. Total 30.	Grade 12 English, min 80%. Average 85%.
HL English A1, min 4 or SL English A1, min 5.	Grade 12 Mathematics and Grade 12 English, min 75% in each. Average 85%.
HL or SL Mathematics, min 5. HL English A1, min 4 or SL English A1, min 5. Strongly recommended: one SL course in Physical or Environmental Science.	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 A1, min 4 or SL English A1, min 5.	Grade 12 Mathematics and Grade 12 English, min 75% in each. Average 85%.
HL or SL Mathematics or Science, min 5. HL English A1, min 4 or SL English A1, min 5.	Grade 12 Mathematics or Grade 12 Science, min 80%. Grade 12 English, min 80%. Average 85%
HL or SL Mathematics and Science, min 5 in each. HL English A1, min 4 or SL English A1, min 5. Total 30.	Grade 12 Mathematics, Grade 12 Science, and Grade 12 English, min 80% in each. Average 85%
HL English A1, min 4 or SL English A1, min 5. Total 30.	Grade 12 English, min 80%. Average 85%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. Two of HL or SL Chemistry, Biology, or Physics, min 5 in each. HL or SL English A1 or A2.	AP Calculus exam, min 4. Grade 12 English. Two of Chemistry, Biology, or Physics, min 90% in each. Average 90%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A1 or A2.	AP Calculus exam, min 4. Grade 12 English. Average 90%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A1 or A2.	AP Calculus exam, min 4. Grade 12 English. Average 90%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL English A1, min 4, or SL English A1, min 5.	AP Calculus exam, min 4. Grade 12 English, min 75%. Average 90%.
HL Mathematics, min 6. Two other HL courses, min 5 in each. HL or SL English A1 or A2.	AP Calculus exam, min 4. Grade 12 English. Average 90%.
Mathematics and Physics (HL recommended), min 5 in each. Chemistry and English A1, min 5 in each. One additional HL or SL course, min 5.	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 70% in each. Average 85% in the 6 required courses.
HL or SL Mathematics (Math Studies not acceptable), min 5. HL or SL English A1 or A2, min 5. Two of Biology, Chemistry, or Physics (at least one HL), min 5 in each.	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.

#### 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 subjects, 2 of which must be at the Advanced Level. GCSE-level English as a Second Language will not satisfy our academic English course requirement. General paper is not accepted for the English course requirements. <b>NOTE: min</b> = minimum final grade.
APPLIED HEALTH SCIENCES	
Health Studies Regular and co-op	A-level Chemistry and A-level Biology, min B in each.
Kinesiology Regular and co-op	A-level Mathematics and A-level Chemistry, min C in each. One of Physics or Biology at the GCSE, AS, or A-level, min B.
Recreation and Leisure Studies Regular and co-op	Two A-level courses, min C in each. English at either the GCSE, AS, or A-level, min B.
ARTS	
Accounting and Financial Management* Co-op only	A-level Mathematics and one other A-level course, min A in each. English at either the GCSE, AS, or A-level, min A.
Arts and Business Regular and co-op	Two A-level courses, min B in each. English at either the GCSE, AS, or A-level, min B.
Computing and Financial Management Co-op only	A-level Mathematics and one other academic A-level, min A in each. English at either the GCSE, AS, or A-level, min B.
Global Business and Digital Arts Regular	Two A-level courses, min B in each. 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	Two A-level courses, min C in each. English at either the GCSE, AS, or A-level, min B.
ENGINEERING	
Architecture* Co-op only	A-level Mathematics and A-level Physics, min B in each. English at the GCSE-level, min B. Two other GCSE, AS, or A-level courses, min B in each.
Chemical, Civil, Computer, Electrical, Environmental, Geological, Management, Mechanical, Mechatronics, Nanotechnology, Software*, Systems Design Co-op only	A-level Mathematics and A-level Physics, min B in each. GCSE-level Chemistry and GCSE-level English, min B in each. One other GCSE, AS, or A-level course, min B.
ENVIRONMENT	
Environment and Business Co-op only	Two 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	Two A-level courses, min B in each. 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. One other A-level course, min B. Strongly recommended: one A-level course in Physical or Environmental Science.
Geography and Aviation* Regular Geography and Environmental Management Regular and co-op	
	course, min B. Strongly recommended: one A-level course in Physical or Environmental Science.
Geography and Environmental Management Regular and co-op	course, min B. Strongly recommended: one A-level course in Physical or Environmental Science.         Two A-level courses, min C in each. English at either the GCSE, AS, or A-level, min B.         A-level Mathematics and one other A-level course, min C in each. English at either the GCSE, AS,
Geography and Environmental Management Regular and co-op Geomatics Regular and co-op	course, min B. Strongly recommended: one A-level course in Physical or Environmental Science.         Two A-level courses, min C in each. English at either the GCSE, AS, or A-level, min B.         A-level Mathematics and one other A-level course, min C in each. English at either the GCSE, AS, or A-level, min B.         A-level Mathematics or one A-level Science course, min B. One other A-level course, min B.

WATERLOO GRAD BECOMES MIT'S YOUNGEST PROFESSOR EVER







	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. <b>NOTE: min</b> = minimum final grade	Chinese High School Diploma. <b>NOTE: Senior 3</b> = Senior 3-level; <b>min</b> = minimum final grade; <b>overall</b> = minimum overall final average.
	Unit 2 Chemistry and Unit 2 Biology, min 2 in each.	Senior 3 Chemistry and Senior 3 Biology, min 85% 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 85% in each. One of Physics or Biology at the Senior 3, min 85%. Overall 85% in Senior 3.
	Two Unit 2 courses, min 3 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 85%. Overall 85% in Senior 3.
	Unit 2 Pure Mathematics, min 3. One other Unit 2 course, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 English, min 85%. Senior 3 Mathematics with evidence of Calculus and Algebra, min 80%. Overall 90% 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 80%. Overall 85% in Senior 3.
	Unit 2 Mathematics, min 2. One other Unit 2 academic course, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. 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 85%. Overall 85% in Senior 3.
	Two Unit 2 courses, min 3 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.
	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.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 75%. Senior 3 Physics, min 75%. Senior 3 English, min 80%. Two other Senior 3 academic courses, min 75% in each. Overall 85% in Senior 3.
	Unit 2 Pure Mathematics and Unit 2 Physics, min 2 in each. Unit 1 Chemistry and CXC or Unit 1 English, min 2 in each. One other Unit 1 or Unit 2 academic course, min 2.	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 85% in 5 required courses.
	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 each. 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 Mathematics, min 3. English at either the CXC, Unit 1, or Unit 2 level, min 3. One other Unit 2 course. Strongly recommended: one Unit 2 course in Physical or Environmental Science.	Senior 3 Mathematics and Senior 3 English, min 80% in each. Strongly recommended: one Senior 3 course in Physical or Environmental Science. Overall 85% in Senior 3.
	Two Unit 2 courses, min 3 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.
	Unit 2 Mathematics and one other Unit 2 course, min 3 in each. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 Mathematics and Senior 3 English, min 80% in each. Overall 85% in Senior 3.
	Unit 2 Mathematics or Unit 2 Science, min 3. One other Unit 2 course, min 2. English at either the CXC, Unit 1, or Unit 2 level, min 3.	Senior 3 Mathematics or Senior 3 Science, min 80%. Senior 3 English, min 80%. 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, Senior 3 Science, and Senior 3 English, min 85% 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 85%. Overall 85% in Senior 3.
2000		





## 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 subjects, 2 of which must be at the Advanced Level. GCSE-level English as a Second Language will not satisfy our academic English course requirement. General paper in not accepted for the English course requirements. <b>NOTE: min</b> = minimum final grade.	
MATHEMATICS		
Bioinformatics Regular and co-op	A-level Mathematics and one other academic A-level, min B in each. Two of Chemistry, Biology, or Physics at the GCSE, AS, or A-level, min B in each. English at either the GCSE, AS, or A-level.	
Business Administration (WLU) and Computer Science (Waterloo), Business Administration (WLU) and Mathematics (Waterloo) – Double Degrees Co-op only	A-level Mathematics, min A. English at either the GCSE, AS, or A-level. One other academic A-level, min B.	
Computer Science, Mathematics, Mathematics/Business Administration, Mathematics/Financial Analysis and Risk Management Regular and co-op	A-level Mathematics and one other academic A-level, min B in each. English at either the GCSE, AS, or A-level.	
Computing and Financial Management Co-op only	A-level Mathematics and one other academic A-level, min A in each. English at either the GCSE, AS, or A-level, min B.	
Mathematics/Chartered Accountancy* Co-op only	A-level Mathematics, min A. English at either the GCSE, AS, or A-level. One other academic A-level, min B.	
Software Engineering* Co-op only	A-level Mathematics and A-level Physics, min B in each. GCSE-level Chemistry and GCSE-level English, min B in each. One other GCSE, AS, or A-level course, min B.	
SCIENCE		
Biotechnology/Chartered 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 C. GCSE English, min B. Two of Biology, Chemistry, or Physics (one must be at the A-level), min B in each. One other academic course at the GCSE level, min B.	

#### \*additional admission requirements and notes

- » Accounting and Financial Management Qualified applicants will be invited to write the Accounting and Financial Management Admission Assignment. findoutmore.uwaterloo.ca/admissions/afm
- » Accounting and Financial Management CA co-op (Chartered Accountancy), Biotechnology/Chartered Accountancy, and Mathematics/Chartered Accountancy - open only to Canadian citizens and Permanent Residents.
- » Architecture Qualified applicants will be invited to an interview, and an English précis-writing exercise and to submit a portfolio. findoutmore.uwaterloo.ca/admissions/architecture
- » 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.
- » Independent Studies An autobiographical letter and letters of reference are required. Qualified applicants will be invited to an interview.
- » Software Engineering Experience in developing well-structured, modular programs is required: findoutmore.uwaterloo.ca/admissions/software. Applicants will be asked to explain programming experience on the Software Engineering Admission Information Form.

#### application tips

- » Applicants from high schools outside of North America and not following the American, British, Caribbean Advanced Proficiency Examination, 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.
- The Faculty of Mathematics will consider GCSE-level English as a Second Language provided that you also submit a satisfactory English language test score. Details: page 27.



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. <b>NOTE: min</b> = minimum final grade.	Chinese High School Diploma. <b>NOTE: Senior 3</b> = Senior 3-level; <b>min</b> = minimum final grade; <b>overall</b> = minimum overall final average.
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. Two of Chemistry, Biology, or Physics at the Unit 1 or Unit 2 level, min 2 in each. English at the CXC, Unit 1, or Unit 2 level.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. Two of Chemistry, Biology, or Physics at the Senior 3, min 90% in each. Senior 3 English. Overall 85% in Senior 3.
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1, or Unit 2 level.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. Senior 3 English. Overall 85% in Senior 3.
Unit 2 Pure Mathematics, min 2. One other Unit 2 academic course, min 2. English at the CXC, Unit 1, or Unit 2 level.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. Senior 3 English. 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.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. 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 the CXC, Unit 1, or Unit 2 level.	Senior 3 Mathematics with evidence of Calculus and Algebra, min 90%. Senior 3 English. Overall 85% in Senior 3.
Unit 2 Pure Mathematics and Unit 2 Physics, min 2 in each. Unit 1 Chemistry and CXC or Unit 1 English, min 2 in each. One other Unit 1 or Unit 2 academic course, min 2.	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 85% in 5 required courses.
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 with evidence of Calculus, min 80% (course outline required). 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.

## choose your focus

#### Apply to the bolded program to study one of the majors listed. \*Regular-only, \*\*\*Co-op-only

ACCOUNTING AND FINANCIAL MANAGEMENT Business and Finance co-op, CA co-op (Chartered Accountant)

#### ARTS - HONOURS ARTS \*\*Co-op available

Anthropology\*\*; Classical Studies; Drama; Economics\*\*; English\*\*; Fine Arts; French; French Teaching Specialization; Geography and Environmental Management; German; History; Italian Studies; Legal Studies; Liberal Studies; Medieval Studies; Music; Peace and Conflict Studies; Philosophy; Political Science\*\*; Psychology\*\*; Religious Studies; Russian and East European Studies; Sexuality, Marriage, and Family Studies; Social Development Studies; Sociology\*\*; Spanish; Speech Communication; Women's Studies

ARTS AND BUSINESS Anthropology; Classical Studies; Drama; Economics; English; Fine Arts; French; Geography and Environmental Management\*; German; History; Legal Studies; Medieval Studies; Music; Peace and Conflict Studies; Philosophy; Political Science; Psychology; Religious Studies; Russian and East European Studies; Sexuality, Marriage, and Family Studies; Social Development Studies; Sociology; Spanish; Speech Communication; 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, Computational Science, 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 and Parks Management

SCIENCE - HONOURS SCIENCE Biochemistry, Biology, Biomedical Sciences, Chemistry, Computational Science, 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, Environmental Sciences, Hydrogeology, Physics, Non-Specialized

# financing your education



\$10,000 CAD

#### **OTHER WAYS TO FINANCE** YOUR EDUCATION

- » Apply to a co-operative education program. You'll gain experience and earn \$30,000-\$75,000 CAD on average over the course of your studies.
- » Take a part-time job. You can work on or off campus during your studies. Most part-time jobs pay \$10.25 CAD or more per hour.
- » Work in Canada after graduation. You can work in Canada for up to 3 years after graduation to gain experience and pay for your education.

What does it cost? How will you pay? These are big questions when you're planning where you'll go to university. Below is an overview of the costs. Find complete details on our website: findoutmore.uwaterloo.ca/financing.

#### **Scholarships**

You're automatically considered for most scholarships - no application is required.

SCHOLARSHIPS – BASED ON ACADEMIC ACHIEVEMENT	VALUE \$CAD
Waterloo Faculty Entrance Scholarships	\$500 for one year to \$40,000 over 4 years
Merit and President's Scholarship	\$1,000-\$2,000 for your first year
President's Scholarship of Distinction	\$2,000 for your first year, plus up to \$3,000 available in upper years
Engineering International Scholarship/Grant	\$5,000/year, renewable in upper years

#### **First-year tuition and fees**

Amounts shown are in Canadian dollars (CAD) and are estimated averages based on 2011 figures. Exact amounts for 2012-2013 will be available in July 2012.

PROGRAM/FACULTY	TUITION IN \$CAD
Applied Health Sciences, Accounting and Financial Management, Arts, Computing and Financial Management, Environment	\$18,700
Science	\$19,500
Mathematics	\$20,000
Architecture, Engineering, Software Engineering	\$27,000

#### Other expenses

- » Incidental fees: \$1,600-\$2,000 CAD
- » Co-op programs: additional co-op fee of \$610 CAD when co-op begins
- » Books and supplies: \$2,000 (most programs); Architecture = \$4,200 CAD

#### Living expenses for 8 months<sup>1</sup>

- » Residence: \$7,800-\$10,400 CAD depending on your residence and meal plan
- » Off campus: \$6,200 CAD amounts vary depending on your living arrangements
- » Other costs: \$2,900 CAD for personal expenses (e.g., phone, entertainment, recreation, laundry, clothing). Amounts vary depending on your needs.

#### Overall costs for 8 months<sup>1</sup> = \$31,400-\$46,500 CAD

NOTES: 1 Fees are paid per 4-month academic term. You do not have to pay for the entire year (2 terms - 8 months) at once. <sup>2</sup> For accounting and finance programs, as with most university professional programs, tuition is significantly higher in your upper years. The higher tuition amounts apply to Accounting and Financial Management and Computing and Financial Management (\$30,000 CAD).



## how to apply

- Check the admission requirements for your program. Details: pages 20-25 or findoutmore.uwaterloo.ca/admissions.
- 2 » Apply through the Ontario Universities' Application Centre 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	DOCUMENTS TO WATERLOO
September to December 2012	March 30, 2012	April 15, 2012
EXCEPTIONS		
Accounting and Financial Management, Architecture	February 10, 2012	March 7, 2012
Engineering, Software Engineering	March 1, 2012	March 30, 2012

Some programs admit for the Winter and Spring. For application deadlines, visit **findoutmore.uwaterloo.ca/admissions/winter.php**.

- **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.
  - English language test score. It 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: findoutmore.uwaterloo.ca/admissions/elr.php.

OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5
Internet- based TOEFL	IELTS	MELAB	CAEL	PTE (Academic)
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

- Admission Information Form (AIF) must be completed for most programs. Details will be sent to you once you apply.
- Supporting documents from your high school may need to be provided (e.g., transcripts, proof of English language instruction).

#### **Transfer credits**

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

#### LEARN MORE.

REQUEST A PROGRAM BROCHURE

#### ENGLISH LANGUAGE SCORE A LITTLE LOW?

IF YOU HAVE APPLIED TO HONOURS ARTS, SOCIAL DEVELOPMENT STUDIES, OR THE FACULTY OF MATHEMATICS, YOU MAY BE ELIGIBLE FOR ADMISSION THROUGH THE ENGLISH FOR ACADEMIC SUCCESS (EFAS) OR ENGLISH LANGUAGE FOR ACADEMIC STUDIES (ELAS) PROGRAMS.





OOTAJL

۲

00

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 findoutmore.uwaterloo.ca/admissions



facebook.com/university.waterloo



**Twitter** twitter.com/uwaterloo



Youtube youtube.com/experiencewaterloo



Request a Brochure findoutmore.uwaterloo.ca/request

## waterloo's campus

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

#### **Campus tours**

- » Campus tours are offered daily Monday-Saturday\* 10:30 am or 1:30 pm
- \* Most days in September-November, January-March, and May-July, excluding holidays and holiday weekends

findoutmore.uwaterloo.ca/visitus

#### **University of Waterloo locations**

- » The University's main campus is located in Waterloo, Ontario.
- » The School of Pharmacy, is located in Kitchener - 5 km from the main campus.
- » The School of Architecture is located in Cambridge, 24 km from the main campus.
- » Our Stratford campus, which focuses on digital media and global business, is 45 km from the main campus.
- » An environmental research and teaching centre is located in Huntsville, 305 km from the main campus.
- » Waterloo also has campuses in Rome, Italy; Dubai, UAE; and Nanjing, China.

#### map legend

- ACADEMIC BUILDINGS
- RESIDENCE BUILDINGS
- STUDENT SERVICES BUILDINGS
- CO-OP BUILDING
- UNIVERSITY COLLEGES





#### IDEAS START HERE®













200 University Avenue West Waterloo, Ontario, Canada N2L 3G1 +519-888-4567, ext. 33614 uwaterloo.ca The University has made every effort to ensure that all information is correct and complete at the time of printing.

Ideas Start Here is a registered trademark of the University of Waterloo.

DESIGN CREATIVE SERVICES, UNIVERSITY OF WATERLOO EDITORIAL A. SMITH, B. TROTTER, A. WELLS, PHOTOGRAPHY LIGHT IMAGING. 00754

