

uwaterloo.ca/science-2-plus-2 » ADMISSIONS



ideas start here®

science 2+2



UNIVERSITY OF WATERLOO
FACULTY OF SCIENCE



ideas start



here[®]

WATERLOO IS RANKED AS ONE OF THE WORLD'S ELITE

- » TOP 100 IN ENVIRONMENTAL SCIENCES AND PSYCHOLOGY
- » TOP 150 IN MATERIALS SCIENCE AND PHYSICS & ASTRONOMY
- » TOP 200 IN CHEMISTRY AND EARTH & MARINE SCIENCES

- QS WORLD UNIVERSITY SUBJECT RANKINGS 2014/15

CANADA'S MOST INNOVATIVE UNIVERSITY

FOR 23 YEARS IN A ROW

- MACLEAN'S 2015 UNIVERSITY RANKINGS

Discover your future at the University of Waterloo - in the heart of Canada's technology triangle

I invite you to join our community of world-class scientists at the University of Waterloo. International collaborations, which include 37 university 2+2 partnerships in 7 countries, have helped us earn the reputation of being Canada's most innovative university. The Science 2+2 program is an ideal way for you to combine your strengths in science with your interest in experiencing Canadian culture first-hand. Your first 2 years in China gives you a firm foundation in your studies to succeed in your last 2 years at the University of Waterloo. Our 2+2 graduates consistently demonstrate superb academic performance, valued contributions in cutting-edge research projects, and a competitive edge in the international job market. I encourage you to find out more about this program and hope to see you on our campus in the near future.

- **BOB LEMIEUX**, Dean of Science

"What's happening here in Waterloo is truly special - a dedication to the kind of deep, fundamental science that will benefit generations to come."

- **STEPHEN HAWKING**

canada's most innovative university

benefit from our world-class reputation

» **QS Stars 5+ highest rating
for international universities**

- Quacquarelli Symonds
World University
Rankings 2015



» **Best Overall University in Canada**

- Maclean's University Rankings 2015

“ **The “2+2” experience at Waterloo helped me greatly in improving my communication skills in English, my understanding of North American culture, and my overall personal growth. It also provided me with a great platform and boosted my confidence in pursuing a career in academia. More importantly, it is a fun adventure and I would do it again in a heartbeat!** ”

- **LIU XIAOMING**, 2005 Graduate
Assistant Professor, University
of North Carolina at Chapel Hill

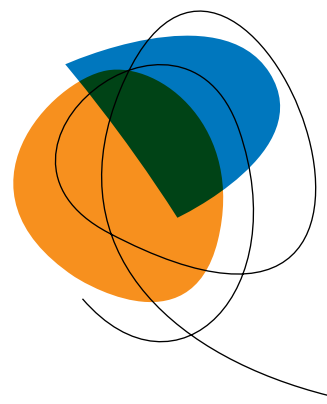


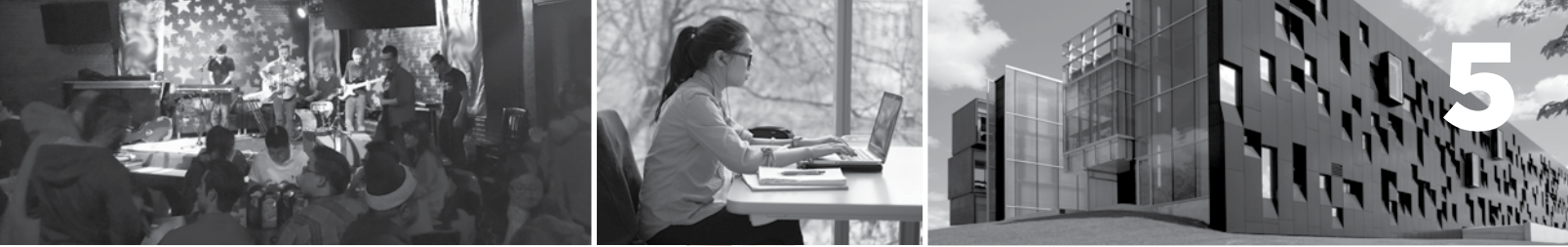
an ideas place

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

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

You and your ideas
will be right at
home here.





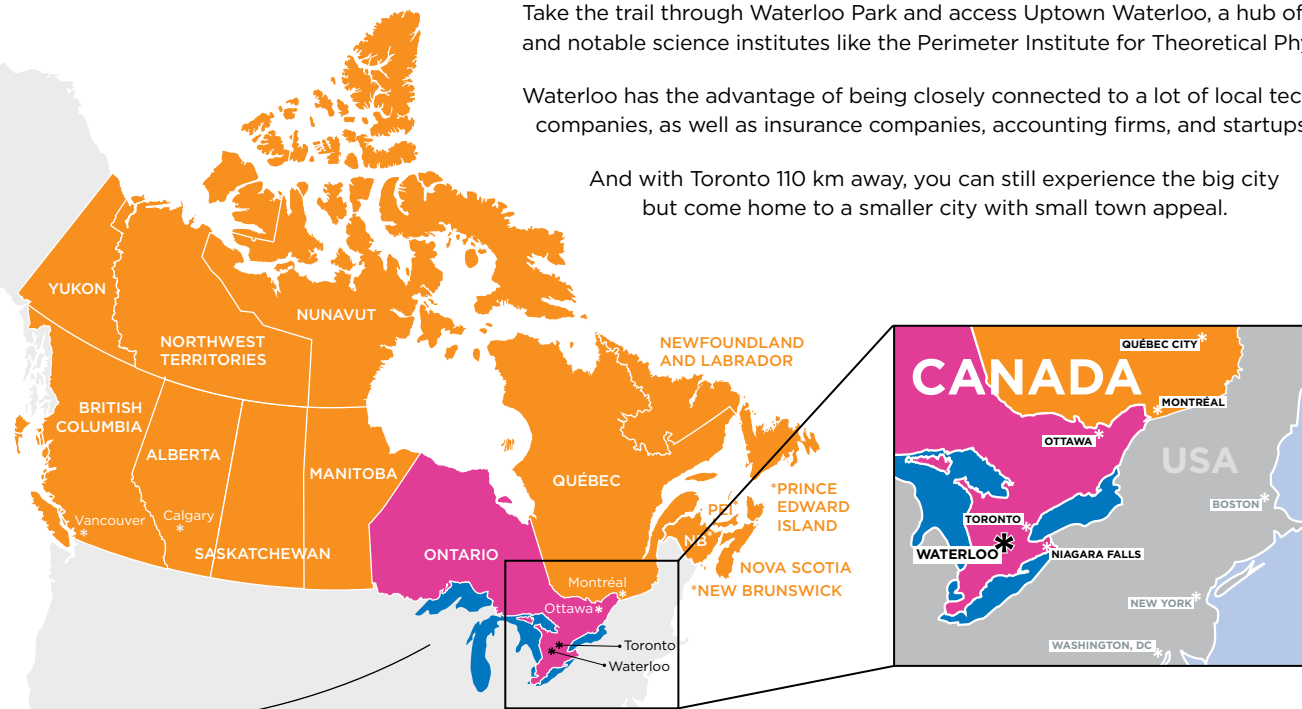
a place where you belong

The Waterloo campus and surrounding community is a safe, lively, and great place to live. The campus feels like a town of its own. Enclosed within Ring Road, everything you need — food, study spaces, classrooms, international student services, and more — is no more than a 15-minute walk away. On campus there are countless ways to get involved. Choose from over 200 campus clubs related to topics like anime and culture and language exchange, or join one of 7 science clubs.

Take the trail through Waterloo Park and access Uptown Waterloo, a hub of urban activity, and notable science institutes like the Perimeter Institute for Theoretical Physics.

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

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



why science 2+2 at Waterloo?



designed for success

2 years in your home university, plus 2 years at the University of Waterloo



more for your money

2 years study in Canada reduces international education expenses by approximately 50%



earn 2 degrees

graduate with 2 honours bachelor degrees from both the University of Waterloo and your home university



graduate with an edge

studying abroad makes you more competitive in the international job market



experience a canadian

university education

13

choose from 13

programs in 5 different areas



outstanding international student support services

uwaterloo.ca/find-out-more/international-students/support-services



volunteer opportunities

get experience for your career



real world experience

work-study programs give you the opportunities to work with researchers while getting paid



conduct research

projects with professors and researchers



international students

can work in Canada for up to 3 years after graduation, which allows you to gain international work experience



Science brings in over **\$60 million per year in research funding** – the highest among all Waterloo faculties



grads launch many

world-class companies such as BlackBerry and Google Adwords



Our new 5-storey Science Teaching Complex will be your home with classrooms, learning laboratories, social and study spaces, and a Starbucks.





science programs

TOP 5 IN
CANADA

» Physics and Astronomy
» Materials Science

- 2015 QS WORLD
UNIVERSITY SUBJECT
RANKING

MATERIALS AND NANOSCIENCES

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

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

Career possibilities: materials scientist, nanotechnologist, materials process specialist

SCIENCE AND BUSINESS

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

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

Career possibilities: project manager, business analyst, business consultant

WATERLOO CHEMISTRY
RANKS IN THE
TOP 5 IN CANADA
AND WITHIN THE TOP
100 WORLDWIDE

- 2014 ACADEMIC RANKING OF
WORLD UNIVERSITIES (ARWU)

TOP 5 IN CANADA
AND TOP 100
WORLDWIDE
ENVIRONMENTAL SCIENCES

- 2015 QS WORLD UNIVERSITY
SUBJECT RANKING



science programs

BIOCHEMISTRY

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

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

Career possibilities: toxicologist, biomaterials researcher, health care professional

BIOLOGY

Study the workings of living organisms, where they come from, and how they evolve and function, gaining insight into our understanding of life.

Specializations: animal biology, environmental biology, microbiology, biotechnology, plant biology, or molecular genetics.

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

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

BIOMEDICAL SCIENCES

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

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

Career possibilities: pharmacist, optometrist, physician

CHEMISTRY

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

Specializations: Biobased, Computational and Materials Chemistry

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

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

EARTH SCIENCES

Explore the world under your feet in close-knit classes taught by professors known internationally for their geology and water research. Learn about the rocks and soils, surface and ground water, and current and prehistoric life that have shaped our incredible planet. Apply your knowledge through hands-on labs and field research at geological hotspots across Ontario and in places like Iceland and Peru.

Specializations: geology, geophysics, hydrogeology

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

Career possibilities: hydrogeologist, geologist, geophysicist



ENVIRONMENTAL SCIENCE

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

Specializations: ecology and geosciences

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

Career possibilities: geoscientist, ecologist, environmental consultant

HONOURS SCIENCE

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

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

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

MATHEMATICAL PHYSICS

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

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

Career possibilities: theoretical physicist, data scientist, quantitative analyst

PHYSICS

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

Specializations: Applied Physics and Astrophysics

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

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

PHYSICS AND ASTRONOMY

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

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

Career possibilities: astronomer, aerospace scientist, remote sensing scientist

PSYCHOLOGY

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

Sample courses: Psychopathology, Genetics, Developmental Psychology

Career possibilities: neuroscientist, child psychologist, psychiatrist



how to apply

Admission must:

- » Be currently enrolled in year 2 or 3 in a 2+2 program partner university with a major related to one of the following areas: biology, chemistry, earth science, environmental sciences, physics, or psychology.
- » Have an average of 70% or more in major required courses.
- » Demonstrate sufficient financial means to study at the University of Waterloo.

Application procedure

- » Take the University of Waterloo's English language exam and attend an interview.
- » Complete the online Application for Admission.
- » Mail application documents to the University of Waterloo.
- » Admission decisions will be sent to you via email in April.

Required application documents

- » A printed copy of your completed application.
- » Your current official university transcript.

- » A certified copy of your official Senior High School Graduation Diploma.
- » A certified copy of your official National University Entrance Exam result.
- » A copy of your CET4/TOEFL/IELTS scores if you have taken any of the test(s).

English language exam and interview

Each fall (October to December), Waterloo's Faculty of Science will send a certified examiner to each partner university to assess the English proficiency of Science 2+2 applicants through a written test and a personal interview. Admission decisions will be made based on both your English test score and academic standing. For more information on the English test, see uwaterloo.ca/science-2-plus-2/future-students/english-test.

Transfer credits

The University of Waterloo will grant transfer credits for the first 2 years of course work to participating students who obtain marks that are at, or above, 60% in examinations set by the partner universities. Only courses that qualify as either core or elective in the relevant programs at Waterloo will be considered for transfer.

Maximum transfer credits allowed: 10 lecture credits, (20 courses) plus any transferable labs.

financing your education



other ways to finance your education

- » Get a part-time job. You can work on or off campus during your studies. Most part-time jobs pay \$11.25 CAD or more per hour.
- » Work in Canada after graduation. As an international student, you can work in Canada for up to 3 years after graduation to gain experience and pay for your education
- » Real work experience: opportunities to work with researchers while getting paid.

Chinese university program award

Each year, the Faculty of Science will offer a certain number of Chinese University Program Awards. You are automatically considered for this award. No application is needed. For more information on student awards and financial aid, see uwaterloo.ca/student-awards-financial-aid/undergraduate-awards/database.

SCHOLARSHIPS – BASED ON THE FIRST 2 YEARS OF UNIVERSITY ACADEMIC STANDING AND RENISON ENGLISH TEST SCORE

VALUE

Chinese Universities Program Awards	\$ 2,000 (CAD) or 4,000 (CAD) at your first term
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Tuition and fees

Each term, tuition (including incidentals) is approximately 11,000 CAD*. Each year, tuition and fees may be subjected to minor changes. For more information, please visit uwaterloo.ca/finance/.

*Based on 2015 costs

Living expenses each term

- » Residence: **\$4,600-\$6,000 CAD** depending on your residence and meal plan.
- » Off campus: **\$3,350 CAD** – amounts vary depending on your living arrangements.
- » Other costs: **\$1,500 CAD** for personal expenses (e.g., phone, entertainment, recreation, laundry, clothing). Amounts vary depending on your needs.

See budget calculator at uwaterloo.ca/find-out-more/financing/interactive-budget.





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