

UNIVERSITY OF WATERLOO | ADMISSIONS

# SCIENCE 2+2

#BEYONDIDEAS

UNIVERSITY OF  
WATERLOO





**#4**

in Canada for Physics and Astronomy  
and Environmental Sciences  
(2020 QS World University Rankings)

**TOP 10**

in Canada for Psychology, Chemistry, Earth  
and Marine Sciences, and Materials Science  
(2020 QS World University Rankings)

**#1**

Canada's most innovative  
university for 28 years in a row  
(Maclean's University Rankings 2020)



# DISCOVER YOUR FUTURE

*At the University of Waterloo –  
in the heart of Canada’s  
technology triangle.*

[uwaterloo.ca/science-2-plus-2](http://uwaterloo.ca/science-2-plus-2)

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**

I invite you to join our community of world-class scientists at the University of Waterloo. International collaborations, which include more than 30 university 2+2 partnerships in China alone, 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 two years in China gives you a firm foundation in your studies to succeed in your last two 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 LEMIUX**

**DEAN OF SCIENCE**

# CANADA'S MOST INNOVATIVE UNIVERSITY

**#1** in Canada amongst  
comprehensive universities  
(Research Infosource 2019)

**#1** for Experiential Learning  
(Maclean's University Rankings 2020)

*Benefit from  
our world-class  
reputation.*

We don't just help you generate ideas, we help you take them beyond ideas and into something you can be proud of. And it's not just in our University, but also in the Region of Waterloo.

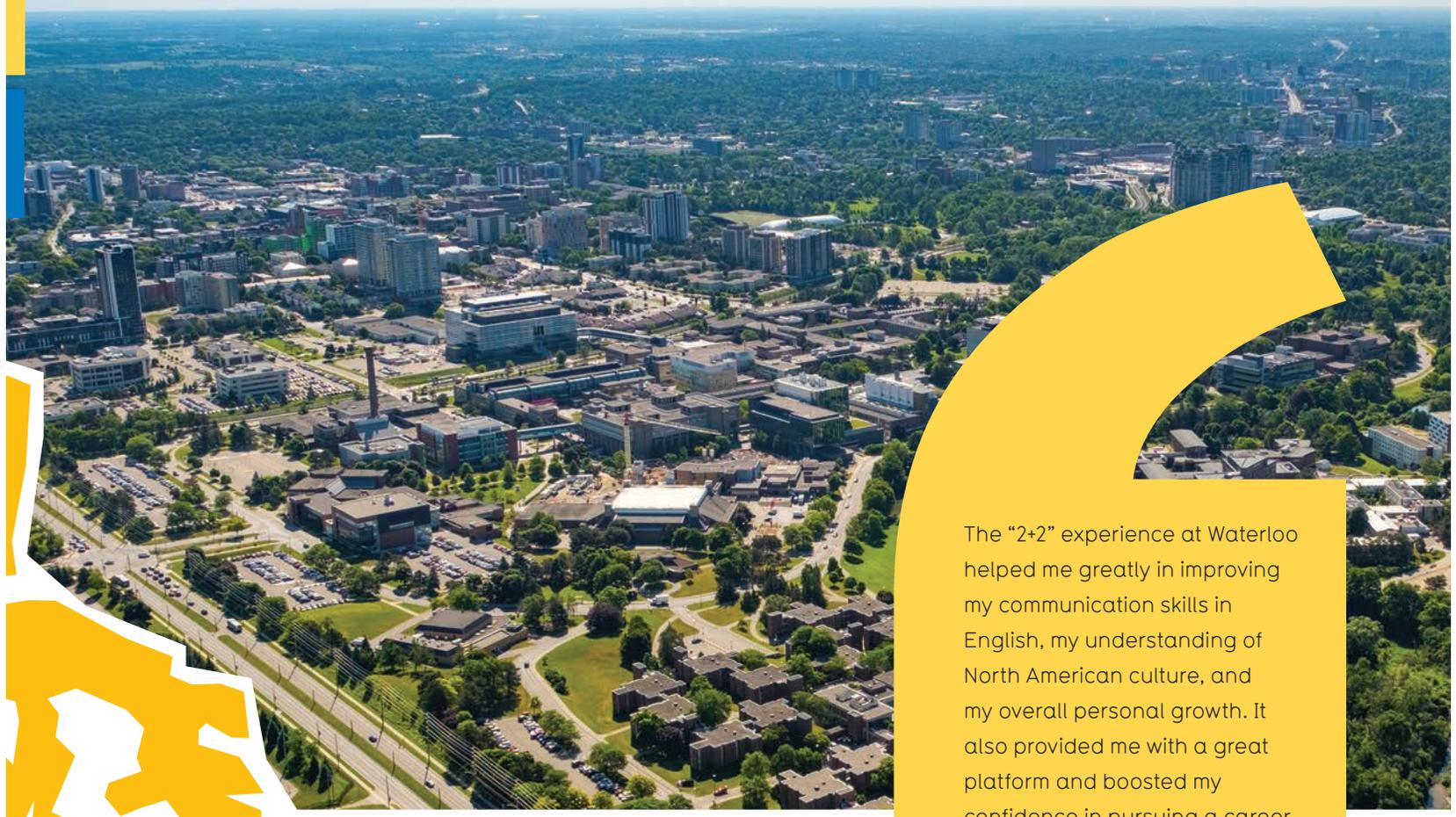
Ranked among the top startup hubs in the world, the Region is focused on the future of technology, innovation, and entrepreneurship. It's home to Velocity – Waterloo's startup incubator that's launched more than 300 companies in 12 years.

You and your ideas will be right at home here.



## A PLACE WHERE YOU BELONG

The Waterloo campus and surrounding community is safe, thriving, and a 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. There are countless ways to get involved, too. Choose from over 200 campus clubs or join one of our seven science clubs.



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 was a fun adventure and I would do it again in a heartbeat!

**LIU XIAOMING**

CLASS OF 2005, ASSISTANT PROFESSOR, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL



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

Waterloo has the advantage of being closely connected to many 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 community with small town appeal.

# WHY SCIENCE 2+2 AT WATERLOO?

## MORE FOR YOUR MONEY

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

## EARN 2 DEGREES

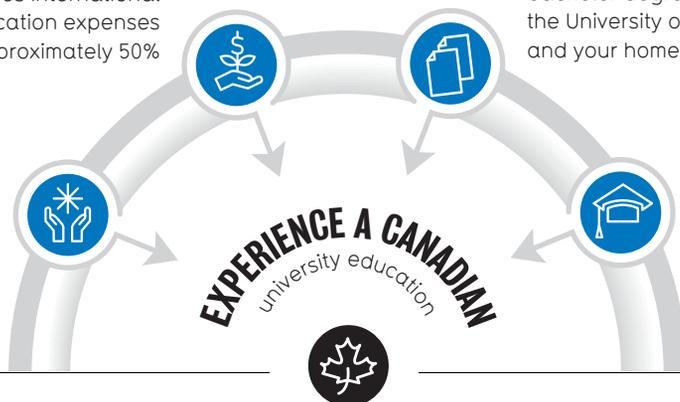
graduate with 2 honours bachelor degrees from the University of Waterloo and your home university

## DESIGNED FOR SUCCESS

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

## GRADUATE WITH AN ADVANTAGE

studying abroad makes you more competitive in the international job market



**CHOOSE FROM 10** programs in 5 different departments



outstanding international **STUDENT SUPPORT SERVICES**

[uwaterloo.ca/future-students/international-students/support-services](http://uwaterloo.ca/future-students/international-students/support-services)

**VOLUNTEER OPPORTUNITIES** get experience for your career



**REAL WORLD EXPERIENCE**

international work-study programs give you 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, gaining international work experience

Science brings in over **\$50M PER YEAR IN RESEARCH FUNDING**



**WATERLOO GRADS LAUNCH**

many world-class companies such as BlackBerry and Google Adwords

*Science, with an edge.*

Our EDGE certificate program helps you boost your résumé potential and identify new career paths.

[uwaterloo.ca/edge](http://uwaterloo.ca/edge)



# SCIENCE PROGRAMS

## **EARTH SCIENCES**

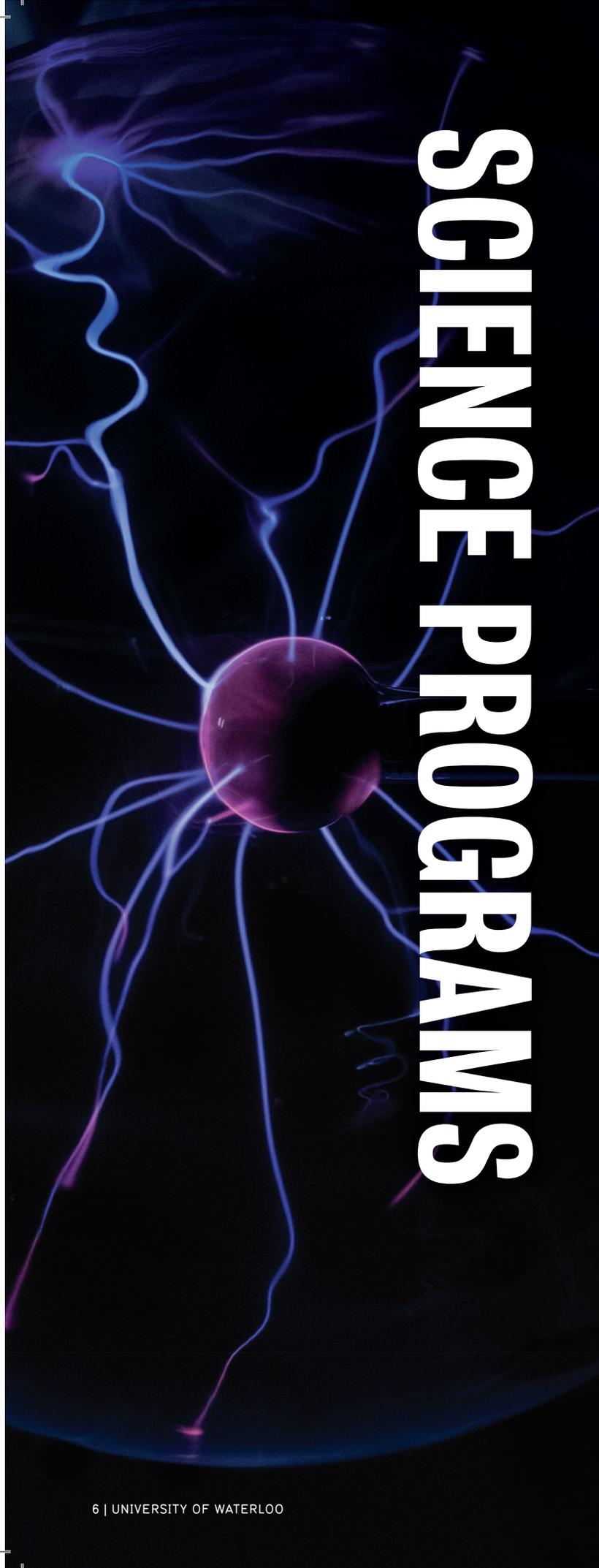
Learn about the world under your feet by exploring topics such as geology, geophysics, geochemistry, and hydrogeology. From rocks and soil to water and the effects of climate change, dive into a fascinating science that shows how the earth is a constantly changing entity. Take advantage of a versatile curriculum where your courses, field trips, and lab studies will prepare you for a variety of prominent and exciting careers.

- › **Specializations:** Geology, Geophysics, Hydrogeology
- › **Possible Career Fields:** Energy and natural resources; Field research; Environmental consulting

## **ENVIRONMENTAL SCIENCES**

Explore the realms of ecology, biology, chemistry, and geoscience to better understand the impact of human and non-human influences on environmental ecosystems, natural resources, and water. Round out your education with fieldwork that connects you with nature, the Earth, and your community.

- › **Specializations:** Ecology, Geoscience, Water Science
- › **Possible Career Fields:** Environmental consulting; Geoscience research; Environmental conservation



# SCIENCE PROGRAMS

## CHEMISTRY

Harness the power of chemistry by studying the composition, structure, and properties of matter. Gain more than 500 hours of valuable, hands-on experience synthesizing compounds and characterizing them using advanced chemical instrumentation. Upper-year students also have the opportunity to participate in a cutting-edge research project of their own, preparing students for careers in research and industry.

- › **Optional Specializations:** Bio-based Chemistry, Computational Chemistry
- › **Possible Career Fields:** Industrial research and development; bio-based materials; energy and the environment

## MATERIALS AND NANOSCIENCES

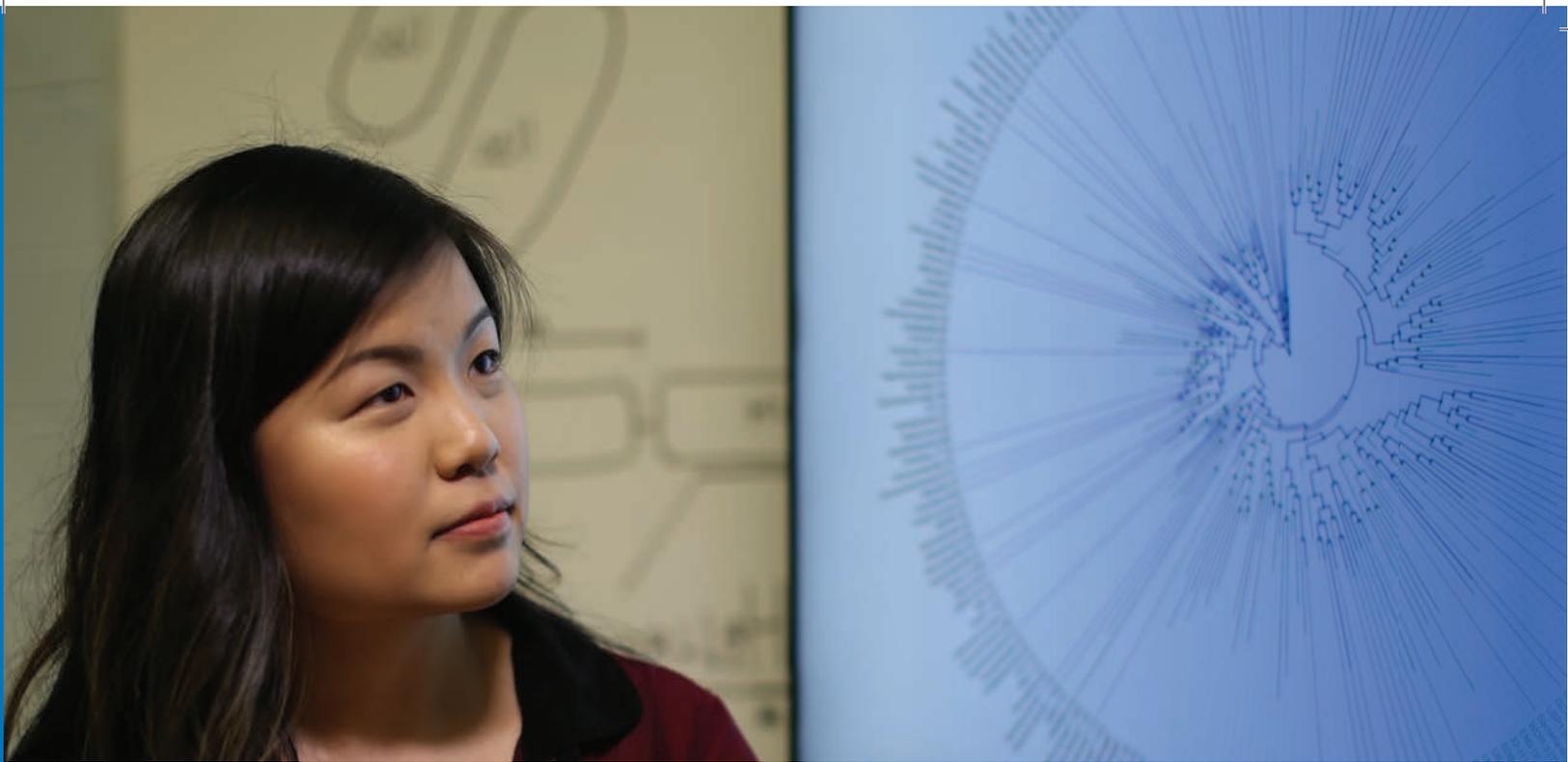
Dive into the world of nanoparticles and learn about the properties of various materials, such as superconductors, insulators, and biomaterials. Prepare for a variety of careers including nanotechnology, quantum materials, bionic research, and the energy sector while taking advantage of our affiliation with the Waterloo Institute for Nanotechnology.

- › **Possible Career Fields:** Renewable energy; Materials research and development; Graduate school

## PHYSICS

Explore matter, energy, and forces at fundamental levels while building your knowledge and skills through experiential learning opportunities in laboratory experiments and upper-year research projects. Learn about a broad range of topics, including quantum mechanics, electromagnetism, optics, condensed matter, gravitation, and relativity. Take your studies further by exploring physics within our graduate programs.

- › **Possible Career Fields:** Research and development; Financial analysis and forecasting; Computer hardware and software development



## MATHEMATICAL PHYSICS

Apply your love of mathematics to understanding how the natural world works. Solve physics problems by studying theories and laws in areas such as quantum physics, electromagnetism, mechanics, and cosmology. Graduates are prepared for master's programs or a wide range of careers in research and development – from quantum technologies to mathematically intensive theories applied to the laws of physics.

- › **Possible Career Fields:** Industry analysis and modelling; Software development; Theoretical physics research

## BIOCHEMISTRY

Biochemistry is a challenging interdisciplinary field that increases our understanding of living systems at the cellular and molecular levels. Explore topics such as chemistry, metabolism, genetics, and microbiology – providing you with robust skills that are essential in many career fields.

- › **Optional Specialization:** Biotechnology
- › **Possible Career Fields:** Toxicology; Pharmaceutical industry; Biotechnology research

## BIOLOGY

Explore all aspects of life and living creatures – from cells and genes to species and diversity. Biology at Waterloo is at the cutting edge of research and continues to expand its disciplinary range so that your course selection is highly diverse and stimulating. With a flexible course load, you'll be able to customize your degree to meet your personal goals.

- › **Possible Career Fields:** Health care; Microbiology; Genetics

## BIOMEDICAL SCIENCES

Study human systems and their functions related to health, disease, and the healing process. Prepare for professional schools such as optometry, pharmacy, and medicine – or look to work in health care once you graduate. This major gives you the flexibility to pursue other courses outside of science, providing you with a well-rounded education that professional schools and employers value.

- › **Possible Career Fields:** Medicine; Dentistry; Veterinary care

## PSYCHOLOGY

Explore human behaviour and mental functions while connecting the physiological and biological processes that underlie neuroscience. Gain hands-on skills in labs and seek to understand the scientific foundations of psychology as you work toward your Honours Bachelor of Science degree.

- › **Possible Career Fields:** Psychiatry; Neuroscience research; Education

# HOW TO APPLY

## APPLICANTS MUST:

- › Be currently enrolled in year two or three in a 2+2 program partner university with a major related to one of the following areas: biology, chemistry, earth sciences, environmental sciences, physics, or psychology.
- › Have an average of 70% or greater in major required courses.

## 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.
- › Obtain an admission decision by email.

## REQUIRED APPLICATION DOCUMENTS

- › A printed copy of your completed application submission summary form with your institution's nomination signature.
- › 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 (Gao Kao) result.
- › A copy of your CET4/TOEFL/IELTS scores, if you have taken any of these tests.

## 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 with a written test and personal interview. Admission decisions will be made based on both your English test score and academic standing.

[uwaterloo.ca/science-2-plus-2/future-students/english-test](http://uwaterloo.ca/science-2-plus-2/future-students/english-test)

## TRANSFER CREDITS

The University of Waterloo will grant transfer credits for the first two years of course work to participating students who obtain marks that are at, or above, 60% in courses at 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 units | **20** courses

plus any associated lab



# FINANCING YOUR EDUCATION

## 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 one of these awards. No application is needed.

[uwaterloo.ca/safa/undergraduate-awards/database](http://uwaterloo.ca/safa/undergraduate-awards/database)

## OTHER WAYS TO FINANCE YOUR EDUCATION

- › Find a part-time job. You can work on or off campus during your studies. Most part-time jobs pay \$14 CAD or more per hour.
- › Work in Canada after graduation. As an international student, you can work in Canada for up to three years after graduation to gain experience and pay for your education.
- › Get work experience. There are opportunities to work with researchers while getting paid.

## SCHOLARSHIPS

Scholarships are based on the first two years of university academic standing and the University of Waterloo's English language exam.

**\$2,000** 

CAD in your first term

## TUITION AND FEES

Each term, tuition (including incidentals) is approximately \$17,000 CAD\*. Tuition and fees may be subject to minor changes.

\*Based on fall 2020 costs

[uwaterloo.ca/finance/fee-schedule-international-undergraduate-students-fall-2020](http://uwaterloo.ca/finance/fee-schedule-international-undergraduate-students-fall-2020)

## LIVING EXPENSES EACH TERM (4 MONTHS)

- › Residence: \$\$3,800-\$7,700 CAD, depending on your residence and meal plan.
- › Other costs: \$1,500-\$3,500 CAD for books and personal expenses (e.g., phone, entertainment, recreation, laundry, clothing). Amounts vary depending on your needs.

See our budget calculator at:

[uwaterloo.ca/future-students/financing/budget-calculator](http://uwaterloo.ca/future-students/financing/budget-calculator)

**ACKNOWLEDGEMENT OF TRADITIONAL TERRITORY**

We acknowledge that the University of Waterloo is located on the traditional territory of the Neutral, Anishnaabeg, and Haudenosaunee people. The University is situated on the Haldimand Tract, the land promised to the Six Nations that includes 10 kilometres on each side of the Grand River.

**UNIVERSITY OF  
WATERLOO**



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Associate Dean, International Programs  
Director, Science 2+2

**DR. CHANGCHENG LI**

Associate Director, Science 2+2

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