DISCOVER YOUR STORY IN SCIENCE
Science drives humanity forward by never being satisfied with the status quo. Scientific curiosity, ingenuity, and ambition have made it possible to image black holes 55 million light years away and perform intricate surgery using the most intense laser pulses ever created.

Become a part of a science community that’s challenging, supportive, and fun. At Waterloo, you’ll use unique tools, technologies, and innovation to push boundaries. Whether you focus on one or many disciplines within science, you’ll be equipped with the skills and knowledge you need to succeed here and in the future.

Let’s explore your story in the Faculty of Science at Waterloo.
“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

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MORE TO EXPLORE

Meet us online for more tips and stories:

WaterlooSci
UWScience
WaterlooScience

BOOST YOUR POTENTIAL

AISHWARYA
PHYSICAL SCIENCES, CO-OP
PHYSICS MAJOR

Opening yourself up to new experiences can be exciting and intimidating. For Aishwarya, starting university meant learning to navigate a new culture too.

Even before leaving India, he found his home away from home in Science where people “are always willing to help. They’re just one message away from meeting with you, discussing what they’re doing and how they got there.”

Once he arrived on campus, the Science Living Learning Community, UW Indian Cultural Association, and clubs like Improv and Muay Thai became valuable sources of friendship and support.
Science is an incredible field of study (if we do say so ourselves), but it can be tricky to know which discipline is right for you. To help, we’ve developed this map that shows the majors offered by the Faculty of Science and how they connect to each other.

**CONNECT TO YOUR SCIENCE**

In high school you get to take three or four main disciplines of science. When you arrive at university, you’re exposed to a much wider array of options. How do you choose?

Our map starts with those core branches of science: biology, chemistry, and physics. Notice those arrows? They’ll lead you to other fields that are connected to that core science. From here, you can begin your research into what discipline of science fits your goals and interests best.

**KNOW YOUR SCIENCE**

You’ll start your major in first year, so knowing which field you’re interested in is very important. But don’t worry – if you change your mind, we’ll help you with that.

You may notice on the following pages that many of our majors are grouped into entry programs – notably Life Sciences and Physical Sciences. This helps you identify the primary branch of science you’re studying, but it’s your major that determines what your course schedule will look like in first year.

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**1,100**

The size of your first-year cohort

**HONOURS BSc**

Degree earned in any of our 17 Science majors
SCIENCE AND BUSINESS

CHEMISTRY

MEDICINAL CHEMISTRY

BIOTECNOLOGY/CPA
+ molecular biology
+ accounting and business

BIOTECHNOLOGY

EARTH SCIENCES

+ water
+ geology

PHYSICS

PHYSICS AND ASTRONOMY

+ space observation

MATHEMATICAL PHYSICS

BIOLOGICAL AND MEDICAL PHYSICS

+ human

ENVIRONMENTAL SCIENCE

+ ecosystems

BIOLOGY

+ human

BIOMEDICAL SCIENCES

+ behaviour

PSYCHOLOGY

HONOURS SCIENCE

+ flexibility

SCIENCE AND AVIATION

+ flight training

MATERIALS AND NANOSCIENCES

+ human

BIOPHYSICS

+ molecular biology
+ accounting and business

CHEMISTRY

+ pharmacology

BIOCHEMISTRY

+ human

BIOCHEMISTRY

+ flexibility

MATHEMATICAL PHYSICS

+ theory
YOU’VE GOT SKILLS

Scientists are in high demand and work all over the globe – pushing the boundaries of discovery and innovation for the benefit of all.

The skills you’ll achieve at Waterloo while earning your Bachelor of Science degree will set you apart. Not only will you learn exceptional technical skills in the laboratory but you can also expand your confidence and interpersonal skills through co-op work terms or EDGE, our experiential education certificate program. You’ll be prepared for the careers of the future, equipped with abilities that are in demand within industry, government, academia, corporations, and consulting firms. With an open mind and a drive to face challenges, you’ll find great success in science.

#24 IN THE WORLD for Graduate Employability
(2022 QS Graduate Employability Rankings)
Seriously impressive skills.

ANALYTICAL CAPABILITIES
Dive deep into problems and explore creative solutions.

CRITICAL THINKING
See things without bias and always ask questions.

EXPERIMENTATION
Test your theories and understand the results.

COMMUNICATION
Master your verbal and written skills for clarity and proficiency.

TIME MANAGEMENT
Effectively juggle classes and labs – plus some time to have fun!

Your interest in science is clear – but you might be wondering how that translates to real-world opportunities. We can definitely point you in the right direction in terms of career fields. Each program page (from 12 to 31) has sample career fields listed – it’ll give you an idea of what’s possible.

CUSTOMIZE YOUR DEGREE
Focus your studies on what you’re interested in by tailoring your degree with minors, options, and specializations.

Minors are a set of around eight courses that offer additional (and often complementary) concentration to your degree. Options work much the same way as minors but are typically only offered to students in a specific faculty and may require fewer courses to complete. Specializations are modifications built into a major that you may opt into. Available specializations are listed on the individual program pages.

MINORS AND OPTIONS THROUGH SCIENCE

› Astrophysics
› Biochemistry
› Bioinformatics
› Biology
› Biophysics
› Chemistry
› Earth Sciences
› Medical Physiology
› Physics

50+ MINORS
available to Science students at Waterloo
YOUR LABS

A SCIENTIST’S PLAYGROUND

Here at Waterloo, you get the advantage of modern, bright, and spacious teaching labs – all with passionate and enthusiastic instructors who want to make experimentation fun and enlightening. With more than 700 labs housed within the Faculty of Science, we’re confident you’ll achieve the hands-on learning and expertise that research centres and employers are looking for. If you love tinkering with science and understanding how new discoveries are made, you’ll fit in here.

THE INNOVATION GAME

We love to see students dabble in experimentation. That’s why we’ve developed the Science Innovation Hub – an interdisciplinary organization aimed to help you progress as a future global science leader and a budding entrepreneur.

The Hub provides you with research-ready laboratory workspaces and equipment, as well as access to a network of advisors. Whether you’re an undergraduate student just starting out with an idea or part of a Science student team (like the International Genetically Engineered Machine team; iGEM), the Science Innovation Hub is ready for you.

First-year chemistry lab in the Science Teaching Complex.
When it comes to experimentation, there are few more passionate than Donna Strickland. She’s revolutionizing the new first-year labs for Physics students. Not only will they change physically, but also how they’re taught fundamentally. “Experiments move science forward. New areas of science begin when the totally unexpected is observed. Science is also driven by new theories, but experiments prove the theories true.” That’s why she’s revolutionizing the new first-year labs for Physics students. She’s changing not only their physical setup but also, fundamentally, how they are taught.

They’ll show you how to be an experimentalist. You’ll learn to interpret data and relate it to models, discover how to design good experiments yourself, and explore how to build representations of physical systems. We take the lab, spin it around, and put you squarely in the driver’s seat. You’ll do more than just follow instructions – you’ll be the person developing them. It’s an innovative new way to think of labs – and it’s happening at Waterloo.
YOUR SCIENCE COMMUNITY

WHERE FUN AND INCREDIBLE SCIENCE COLLIDE

Being in the Faculty of Science isn’t just about the academics. We’re a community that supports and nurtures talented, innovative, and confident scientists that are ready to revolutionize the world.

“SCI” SOCIETY

Our students often say that the Science community was one of the best parts of their time here. You’ll find that community through Science Society (or SciSoc, as it’s known around campus). It’s our student-run government that offers academic and social activities and also represents Science students within our student union, the Waterloo Undergraduate Student Association (WUSA).

SciSoc offers eight student-run clubs that are aligned to our programs and majors, like the Biology Undergraduate Society (BUGS) or ChemClub. Take advantage of fun events like trivia challenges, de-stressing activities, and volunteer opportunities.
SUPPORT IN SCIENCE

Nearly every student in university needs a little help and guidance at some point in their academic career. Whether it’s switching majors, dropping courses, adjusting workloads, or talking about career opportunities, we’ve got the people to support you.

The Science Undergraduate Office (SUO) is where you’ll book appointments with academic advisors, learn more about MATES (Mentor Assistance Through Education and Support; staffed by upperyear peers), and seek guidance on how unexpected changes to your personal situation might impact your academics.

We also have career advisors, mental health resources, counselling services, advisors for your specific major, and so much more. No matter what you need, we have a support system to help you be the best you can be.

SCIENCE LIVING LEARNING COMMUNITIES IN RESIDENCE

Live close to other first-year Science students in the Science Living Learning Community. You’ll live within larger Campus Housing communities so you can experience the diversity of friendships that residence provides, with the added bonus of having more of your peers along for the ride.

You can walk to class with Science mates, help each other with lab reports, and get together to study for tests. Back in residence you can grab food in the dining hall, hang out in the residence lounge, or attend residence programming like drop-in tutoring sessions.

CLUBS IN SCIENCE

› Biochem Student Association (BSA)
› Biology Undergraduate Society (BUGS)
› Biomedical Science Student Association (BMSA)
› Chemistry Club (ChemClub)
› Earth and Environmental Science Club (WATROX)
› Materials and Nanosciences Society (MNS)
› Physics Undergraduate Society (PhysClub)
› Science and Business Students’ Association (SBSA)
Science offers a wealth of first experiences that you may already be looking forward to (hello first pair of goggles and lab coat), but it also has surprising moments that you’ll remember for the rest of your life. Check out what our Science students said about what made their first year unforgettable.

No matter where you’re from or what major you choose, it’s going to be an incredible year.
**FIRST DAY**

“Orientation was absolutely life changing, it’s where I met one of my closest friends. Lots of first years have reservations about putting themselves out there, but attending O-week was one of the best decisions I made.”

- Ana, Biochemistry major

**FIRST LECTURE**

“I was amazed to see how large the class sizes were and how many people shared the same passions I did! The profs really want you to succeed. They provide a lot of support throughout your first year to feel good with the material.”

- Lindsay, Honours Science Major

**FIRST LAB**

“I remember leaving my chem lab and walking back to residence with goggle lines on my face and my lab coat still on and billowing behind me – all with a smile and a great sense of confidence. It was just so exciting.”

- Lilli, Chemistry major

**FIRST CLUB**

“For me, it was running for and joining PhysClub. The people were superbly friendly and it helped create a sense of belonging for someone who is thousands of kilometres from home.”

- Azzam, Physics and Astronomy major

**FIRST SCIENCE OPEN HOUSE**

“The energy of the whole event was amazing. Science opened its doors to the community and I ran a station where we used a special powder to show how important proper hand washing was. The look on the kids’ and their parents’ faces ... priceless!”

- Kristina, Psychology major

**FIRST LET’S TALK SCIENCE**

“I didn’t realize how much I loved communicating science to others until I volunteered at my first outreach event, Let’s Talk Science. Demonstrating my passion for science in my community has been a highlight of my time here.”

- Jenny, Biomedical Sciences major
PROGRAMS

TOP 10 IN CANADA
for Biology (2022 Maclean’s University Program Rankings)

ONE OF THE RECOMMENDED UNDERGRADUATE PROGRAMS
for those seeking a degree in optometry or pharmacy
We’re cultured! 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 that includes more than 10 electives in any subject, plus more options within science subjects, you’ll be able to customize your Biology degree to meet your personal goals.

Possible Career Fields

- Health care
- Genetics
- Microbiology

Biology, meet computer science

Bioinformatics is the merging of substantial biological data (think the human genome with its three billion lines of code) with the power of computer science. And it has far-reaching applications – this can be applied to all aspects of life and diversity for incredible discovery potential.

Meet AnnoTree – pictured above – one of the innovative bioinformatics tools created on campus. Andrew Doxey and his colleagues developed a “microbial tree of life” database that merges protein science with computational genomics.

With an estimated one trillion species of microbes on Earth, and 99.9 per cent of them still waiting to be discovered, Andrew’s research analyzing microbial genomes paves the way for discovering new bacterial proteins, such as toxins.

We offer an option (similar to a minor) in bioinformatics, where you’ll take courses in biology and computer science, and it’s open to all Faculty of Science students.
Life is beautiful. 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 study other subjects outside of Science, providing you with a well-rounded education that professional schools value. You’ll also have the opportunity to pursue your MSc or PhD in research areas like molecular genetics, physiology, or developmental biology.
LIFE SCIENCES

PSYCHOLOGY

Mind over matter. 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. And with the Centre for Mental Health Research and Treatment right on campus, you’ll be around some of the most knowledgeable faculty in the field of psychology.

APPLY TO
the Life Sciences entry program on OUAC, selecting Psychology as your subject of major interest.

CO-OP AVAILABLE

POSSIBLE CAREER FIELDS
- Psychiatry
- Neuroscience research
- Clinical psychology

SHARYN
PSYCHOLOGY, CO-OP
BIOLOGY MINOR

Sharyn, an international student from Barbados, chose to study psychology to understand how people tick. She was impressed at how expansive this field of study was. Over the course of her degree, Sharyn’s had lots of opportunities to study theories and concepts about humans and their interactions. And she’s been able to apply them too – working as a cognitive psychology research assistant and writing her honours thesis in social psychology.

“Thanks to the wealth of psychology courses offered by the University of Waterloo, I can explore my passion to my heart’s delight!”

#4 IN CANADA

for Psychology (2022 QS World University Subject Rankings)
When extracting oil from caraway seeds, Inderpreet needed to turn off the water supply running through the condenser. He turned the knob to the left, accidentally increasing water pressure. The distillation tube blew off the tap, spilling water everywhere. “Thankfully my instructors and TAs were super supportive. I learned many lessons through failing and ‘righty tighty lefty loosey’ was learned that day.”

**LEARNING FROM MISTAKES**

**INDERPREET**
**BIOCHEMISTRY, CO-OP**

**APPLY TO**
the Life Sciences entry program on OUAC, selecting Biochemistry as your subject of major interest.

**CO-OP AVAILABLE**

**PROFESSIONAL MEMBERSHIP**

With a degree in Biochemistry, you’ll fulfill the requirements to become a member of the Chemical Institute of Canada (CIC).
We’ve got great chemistry. Learn how to design, synthesize, and evaluate potential drugs. Gain hands-on experience through synthetic labs and co-op terms that’ll uniquely qualify you for a career in a rapidly evolving industry. You’ll learn in highly specialized teaching labs that match (or are even better than) those in the industry. Work with researchers in universities, hospitals, and pharmaceutical companies while you enhance your skills in experimentation, critical thinking, and analysis.

**APPLY TO**

the Physical Sciences entry program on OUAC, selecting Medicinal Chemistry as your subject of major interest.

**CO-OP ONLY**

**PROFESSIONAL MEMBERSHIP**

With a degree in Medicinal Chemistry, you’ll fulfill the requirements to become a member of the Chemical Institute of Canada (CIC).

**POSSIBLE CAREER FIELDS**

- Pharmacology, drug discovery and design
- Industrial research and development
- Experimental researcher

**PHYSICAL SCIENCES**

**MEDICINAL CHEMISTRY**

“I really love that my labs provide me with real-world research skills that I’ve already been able to put into practice during my co-op terms. I’ve built confidence in critical thinking, which is crucial in this field.”

**ELIN, MEDICINAL CHEMISTRY, CO-OP**
TOP 5 IN CANADA
for Chemistry (2022 QS World University Subject Rankings)

PROFESSIONAL MEMBERSHIP
With a degree in Chemistry, you’ll fulfill the requirements to become a member of the Chemical Institute of Canada (CIC).

MICHAEL
CHEMISTRY, CO-OP

“I’ve always loved chemistry labs. Being able to run the experiments yourself and experience the chemistry in real time will always be an incredibly fulfilling experience for me.”

PHYSICAL SCIENCES
CHEMISTRY
Feel the 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, analyzing, and characterizing compounds using modern chemical instrumentation. In upper years, you’ll also have the opportunity to participate in an advanced research project of your own design, preparing you for careers in research and industry.

Industrial research and development
Bio-based materials research
Polymer research

OPTIONAL SPECIALIZATION
> Computational Chemistry

CREATE A REACTION

All Science majors at Waterloo take chemistry. Why? It’s foundational to everything you study. Chemistry is all around you. It’s in the food you eat and the fuel in your car. It’s in big catastrophic reactions and in slow environmental changes. Understanding chemistry will give you a deeper appreciation of the world around you.

At Waterloo, your first lab will be a chemistry lab where you’ll learn important concepts and techniques. Our instructors and lab spaces are the best of the best. When you major in chemistry, these labs will become a second home.
Drill 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 in fields including nanotechnology, quantum materials, bionic research, and the energy sector while taking advantage of our affiliation with the Waterloo Institute for Nanotechnology. You’ll also be prepared for graduate-level studies in topics like nanomaterials, materials engineering, nano-electronics, and more.

POSSIBLE CAREER FIELDS

- Renewable energy
- Materials research and development
- Nanotechnology

NANO DEFINED

Looking at the extremely small scale of nanoparticles means examining objects and materials one-billionth the size of a standard metre.
Develop X-ray vision. Channel the power of physics and apply it to biological systems. Learn how medical imaging systems work by accessing our state-of-the-art labs and taking courses focused on human physiology and quantum mechanics. Expand your knowledge through experiential learning opportunities, and prepare for graduate studies or employment in the growing interdisciplinary field of biomedical technology.

**SADIE**

**BIOLOGICAL AND MEDICAL PHYSICS, CO-OP**

Before coming to Waterloo, music was a big part of Sadie’s life, with her concerts being just as important as her exams. “Just like my major is interdisciplinary, so has been my experience at Waterloo. I’ve played in musical ensembles large and small and met so many others (even in Science) who share my love for music. With all the exciting change university has brought, I’m grateful for the constancy of music.”

**POSSIBLE CAREER FIELDS**

- Medicine
- Cancer treatment
- Medical imaging

**TAKE ADVANTAGE OF OUR PARTNERSHIP WITH THE GRAND RIVER REGIONAL CANCER CENTRE**

and work with medical physicists during co-op work terms.
The Physics co-op program gave Saral the chance to experience the concepts he was taught in his lectures out in the real world. This was critical because Saral started his career at Waterloo during the COVID-19 pandemic. “In my first co-op term I learned about laser, holography, and motorized stages. I used different objects like mirrors, lenses, and beam splitters to create an optical setup from scratch. My co-op work term even saw me coding programs that tie everything up to automate the system! The experience reassured me that I made the right decision by studying Physics at Waterloo.”
Explore your potential (energy). Study matter, energy, and forces at fundamental levels while building your knowledge and skills through co-op terms, laboratory experiments, and upper-year research projects. Learn about a broad range of topics, including quantum mechanics, electromagnetism, optics, condensed matter, gravitation, and relativity. Go even further with our graduate programs in areas like optics and photonics and quantum computation.

**POSSIBLE CAREER FIELDS**

- Experimental and theoretical physics research
- Computer hardware and software development
- Financial analysis and forecasting

**SMALL SCALE, BIG IMPACT**

The word quantum is thrown around a lot. But what is it? Quantum, as it turns out, is a broad term for anything being studied at the atomic and subatomic level – matter’s smallest particles and the energy that’s between them. While physicists have been studying the quantum nature of reality for over a century, today’s innovators are applying it to create powerful new technologies in areas such as computing, materials, energy generation and storage, artificial intelligence, and more.

**APPLY TO**

the Physical Sciences entry program on OUAC, selecting Physics as your subject of major interest.

**CO-OP AVAILABLE**
APPLY TO
the Physical Sciences
entry program on
OUAC, selecting
Mathematical Physics
as your subject of
major interest.

CO-OP AVAILABLE

We’re on the same wavelength. Apply your love of mathematics to understand how the world works at a deeper theoretical level. Study advanced quantum physics and electromagnetism. Explore areas such as relativity, particle physics, astrophysics, and pure mathematics. Graduates are prepared for MSc and PhD programs or a wide range of careers in research and development – from quantum technologies to applications of advanced theoretical tools.

POSSIBLE CAREER FIELDS

- Theoretical physics research
- Quantum computing
- Industry analysis and modelling

“My favourite course is Quantum Physics because, just like a different language, it introduces me to a different realm with its own rules and ideas. When those are applied correctly, you achieve a great eloquence.”

APPLY TO

the Physical Sciences entry program on OUAC, selecting Mathematical Physics as your subject of major interest.

CO-OP AVAILABLE
Here, the sky’s definitely not the limit. Study our vast universe, from subatomic particles to planets, stars, and galaxies, while learning about the origin, evolution, and fate of the entire cosmos. Engage with world-acclaimed professors who use state-of-the-art satellites and telescopes to explore space, while expanding your knowledge of one of the oldest branches of science and its extraordinary impact on modern-day physics.

**APPLY TO**
the Physical Sciences entry program on OUAC, selecting Physics and Astronomy as your subject of major interest.

**CO-OP AVAILABLE**

**POSSIBLE CAREER FIELDS**
- Aerospace
- Remote sensing and imaging
- Astronomy research

Azzam and Ridhee set up their Edmund Astroscan telescopes for observations of the night sky. Physics and Astronomy students learn about the universe through direct observation, including opportunities to attend labs in our Gustav Bakos Observatory and field trips to Columbia Lake, located right on campus.

Home of the new

**WATERLOO CENTRE FOR ASTROPHYSICS**

**#4 IN CANADA** for Physics & Astronomy (2022 QS World University Subject Rankings)
As an undergraduate student who took Earth Sciences because he loved the outdoors, Carson found his home in the Faculty of Science. Today, he’s a scientist investigating the complexities of the natural world.

He’s passionate about earth science – from the chemical makeup of water and rocks to the physics that controls the Earth’s landscape. He now works towards a more sustainable future by studying the Earth’s past.

CARSON  
EARTH SCIENCES, ’19  
GEOLGY SPECIALIZATION  
PHD CANDIDATE

APPLY TO
the Physical Sciences entry program on OUAC, selecting Earth Sciences as your subject of major interest.

CO-OP AVAILABLE

POSSIBLE DESIGNATION
Professional Geoscientist (P.Geo.)

TOP 10 IN CANADA
for Earth & Marine Sciences, Geology, Geophysics  
(2022 QS World University Subject Rankings)
Evan loves his ecology labs and has been able to use his knowledge while on co-op work terms. His favourite experiences? Research in the fields of aquatic ecology and ecosystem ecology.

“I continue to love this program thanks to the variety of hands-on experiences examining specimens in the lab and in the field.”

A good planet is hard to find. 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.
CLOSE-KNIT ISN’T JUST FOR SWEATERS

HAYLEY SCIENCE AND BUSINESS, CO-OP

Hayley had heard that the Science and Business community was tight-knit, but she didn’t totally appreciate those words until she started attending classes. By the end of first year, she knew all of her peers by name, and (more importantly) her Science and Business instructors knew her name.

With friends who both challenge her and have her back, she’s thriving in an environment that makes Science and Business an amazing student experience.

SCIENCE AND BUSINESS

Business in the front, science in the back. Incorporate courses in science with expertise in business disciplines such as marketing, economics, and accounting. Be part of a dynamic cohort with access to award-winning instructors and unique workshops that allow you to apply your scientific knowledge and analytical skills to business situations.

POSSIBLE CAREER FIELDS

- Project and program management
- Business analysis
- Technology development

SPECIALIZATIONS

- Biochemistry
- Biology
- Biotechnology

APPLY TO
the Science and Business program
on OUAC.

CO-OP AVAILABLE

THE ONLY CO-OP SCIENCE AND BUSINESS PROGRAM in North America
BIOTECHNOLOGY/CPA

We account for everything. In Biotechnology/Chartered Professional Accountancy (CPA), you’ll learn how biological processes are used to develop new technologies. You’ll also gain expertise in financial management, accounting, auditing, and taxation. Companies value the transferable skills you’ll develop, especially in biotechnology – one of the most rapidly growing industries in North America. Plus, you’ll gain 16 months of paid co-op experience that counts toward your CPA designation.

POSSIBLE CAREER FIELDS

- Audit and tax
- R&D monitoring and assessment
- Pharmaceutical and medical technology

KRIASANTHA
BIOTECHNOLOGY/CPA, CO-OP

“I love that I get to explore both fields in depth with hands-on labs and case studies! Case studies allow me to apply what I’ve learned. In one of my courses, I’d file taxes for fictional characters like “Bruce Banner.” It’s really fun! In my biology labs, I’d use colony counters, plate bacteria, and test what I’ve been studying. It’s like being a scientist and a detective rolled into one!”

APPLY TO
the Biotechnology/Chartered Professional Accountancy program on OUAC.
CO-OP ONLY

TOP 5 IN CANADA
for Finance & Accounting
(2022 QS World University Subject Rankings)

Biotechnology/CPA + Master of Accounting (MAcc) = ALL THE CREDITS YOU NEED FOR CPA ACCREDITATION
POSSIBLE CAREER FIELDS
- Aviation industry
- Flight education
- Aerial surveying

You’re on our radar. Pursue a career as a pilot while studying the scientific foundations associated with flight and the field of aviation. Graduate with your Commercial Pilot Licence (CPL) and work towards your Integrated Airline Transport Pilot (IATP) designation through written exams.

APPLICATION TO
the Science and Aviation program on OUAC.

REGULAR SYSTEM OF STUDY ONLY

WATERLOO WELLINGTON FLIGHT CENTRE

The Waterloo Wellington Flight Centre (WWFC) provides exceptional training programs for private and professional pilots. Our partner in flight education, the WWFC is located at the Region of Waterloo International Airport in Breslau, Ontario, a 20-minute drive from the University.

200+ flight hours gained by graduation

TIFFANY SCIENCE AND AVIATION

“My time in the Science and Aviation program has allowed me to try new things and push myself out of my comfort zone. The hands-on flying experience has been one of the most challenging, rewarding, and fun things I have ever done.”
Honours Science really allows you to personalize your own degree and work at your own pace. It’s so flexible you can take anything – from mythology to languages – while you gain skills and knowledge in the sciences you love. I benefitted from this greatly.

Anything is possible. Craft your own degree by taking courses that fit your interests, or align your labs and lectures to the requirements of the professional school of your choice.

The Honours Science major sets a few guidelines on how much science you need in order to finish your degree, but what those science courses turn out to be is mostly up to you. And by incorporating minors, you can add additional focus and depth to your learning. It’s also possible to have a joint program with other faculties, like Health or Math. With Honours Science, you have the freedom of discovery.

Possible career fields:
- Health care
- Education
- Research and development

One of the recommended undergraduate programs for those seeking a degree in optometry or pharmacy.

Apply to the Honours Science program on OUAC.

Regular system of study only.
CHOOSE FROM TWO SYSTEMS OF STUDY

CO-OP (5-YEAR DEGREE)
In most Science majors, you can choose our co-op program to add work experience to your degree.
› Alternate study terms with paid work terms.
› Explore a variety of careers and make valuable networking contacts.
› Graduate with up to two years of work experience – developing the skills and knowledge that employers want.

The University of Waterloo offers the WORLD’S LARGEST CO-OP PROGRAM OF ITS KIND

uwaterloo.ca/coop

REGULAR (4-YEAR DEGREE)
Graduate a full year sooner than in co-op and enjoy continuity in your campus activities.
› Plan your summers with ease, for work, travel, volunteering, or extra courses.
› Enhance your academic, co-curricular, and work experience with EDGE, our experiential education certificate program for those in the regular program of study.
› Utilize our EDGE and career advisors to enhance and market your skills.

Popular choice for those applying to PROFESSIONAL SCHOOLS

uwaterloo.ca/edge

HOW TO APPLY TO CO-OP
Check the co-op circle on OUAC when you apply to your program of choice. If you’re not offered a space in co-op, you’ll automatically be considered for the regular program. Not sure if you want co-op? We recommend you apply to the co-op program (if available) to secure a space within the program. It’s easier to opt out than to opt in.

$8,400–$15,600+
potential co-op earnings per Canadian work term (2022)

680+
science-active employers

TYPICAL CO-OP AND REGULAR WORK-TERM SEQUENCES

The order of study and work terms, for those in the co-op program, depends on your major. This chart illustrates our most common co-op study/work-term sequence.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TERM</th>
<th>CO-OP</th>
<th>REGULAR</th>
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<tbody>
<tr>
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<td>Winter</td>
<td>Study</td>
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<td></td>
<td>Spring</td>
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<td>4</td>
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<td>Winter</td>
<td>Study</td>
<td>Study</td>
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</tbody>
</table>
ADMISSIONS

BASED ON ACADEMIC ACHIEVEMENT

PRESIDENT’S SCHOLARSHIP OF DISTINCTION
(95% or higher)
$2,000 for first year plus up to $3,000 available in upper years

PRESIDENT’S AND MERIT SCHOLARSHIPS
(90-94.9% = $2,000; 85-89.9% = $1,000)
$1,000 or $2,000 for first year

FACULTY ENTRANCE SCHOLARSHIPS
$1,000 for first year up to $80,000 over four years

BASED ON CONTEST RESULTS

CHEM 13 NEWS RESEARCH AWARDS
Up to $1,000 based upon results of the Chem 13 News Exam. Required to work with a Chemistry professor and/or research group.

SIR ISAAC NEWTON SCHOLARSHIPS IN PHYSICS
$1,000 to $5,000 based on the Sir Isaac Newton Examination rankings.

SPECIAL CONSIDERATIONS

OUTSIDE OF ONTARIO
For students applying from outside of Ontario, check specific admission requirements online.

TRANSFERS
Transferring from a college, university, or CEGEP? Review admission requirements, transfer credit eligibility, or college pathway options.

ENGLISH LANGUAGE REQUIREMENTS
If English is not your first language and your four most recent years of full-time education have not been in an English language school system, you’ll need to provide an English language test score. Review which tests are accepted, the deadlines, minimum scores, exceptions, and other details.

FINANCING YOUR EDUCATION

SCIENCE SCHOLARSHIPS

BASING ON ACADEMIC ACHIEVEMENT VALUE QUALIFYING MAJORS
PRESIDENT’S SCHOLARSHIP OF DISTINCTION $2,000 for first year plus up to $3,000 available in upper years
(95% or higher)

PRESIDENT’S AND MERIT SCHOLARSHIPS $1,000 or $2,000 for first year
(90-94.9% = $2,000; 85-89.9% = $1,000)

FACULTY ENTRANCE SCHOLARSHIPS $1,000 for first year up to $80,000 over four years

Other Scholarships

BASED ON ACADEMIC ACHIEVEMENT VALUE
PRESIDENT’S SCHOLARSHIP OF DISTINCTION $2,000 for first year plus up to $3,000 available in upper years
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You’ve worked hard to meet our requirements and we want to reward you for your effort. In addition to what’s listed here, information about a number of additional Faculty of Science scholarships is available online. We may also read your Waterloo Admission Information Form (AIF) for automatic consideration for scholarships, so be sure to consider this when completing it.

OCCUPATIONS

You can follow the advice of the occupations featured in this book to improve your career prospects. Consider the following occupational areas that may interest you:

Science

Note: This book is designed for students seeking careers in science-related fields and provides guidance on how to pursue those careers effectively.

FINANCING YOUR EDUCATION

uwaterloo.ca/future/financing
uwaterloo.ca/future/aif

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ACKNOWLEDGEMENT OF TRADITIONAL TERRITORY

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River.

Our greatest impact happens together

Waterloo is committed to acting on the climate emergency and is working toward carbon neutrality and zero waste in our own practices. The paper this publication is printed on contains 100% post-consumer fiber, is manufactured using renewable energy and is Forest Stewardship Council® (FSC®) certified.