Your Science Journey

Undergraduate Program Guide

Ryerson University

Faculty of Science

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The Ryerson Experience

Welcome to the Faculty of Science

At Ryerson, science is about discovery and results. Our authentic science approach builds bridges between disciplines to solve some of today's biggest challenges, from preserving clean water to developing smarter disease therapies to measuring financial risk. Each program offers an optional co-op stream, and with real-world learning throughout the curriculum, you'll be immersed in a community of students like you who interact daily with passionate, talented professors.

Bright Lights, Big City

Ryerson's location in the largest and most diverse city in Canada places a rich array of cultures, businesses, industries and employment opportunities within easy reach. This is a university campus that extends beyond classrooms, labs and buildings and into the heart of downtown Toronto. In this truly global city, you'll meet and work with people from all around the world and build friendships and networks for life.

Ryerson Lifer

Eno Hysi can't get enough of Ryerson. He arrived as a first year student in Medical Physics, and stayed on for his Master's and PhD degrees.

"When I arrived, I was blown away by the research opportunities for undergrads," he says. "No matter what you want to do after your BSc – advanced science, medical school, employment – research experience opens a lot of doors. But maybe even more important, everyone here wants you to succeed. I feel like I've got a whole team on my side."

Eno was recently awarded a prestigious Banting Postdoctoral Fellowship from the Canadian Institutes of Health Research (CIHR). Now, he's working at St. Michael's hospital where he's conducting clinical trials for technology that he developed at Ryerson using photoacoustic imaging to assess damage in donor kidneys.

"One day, I hope to have my own research lab and train the next generation of students the same way I've been helped here."

Eno Hysi

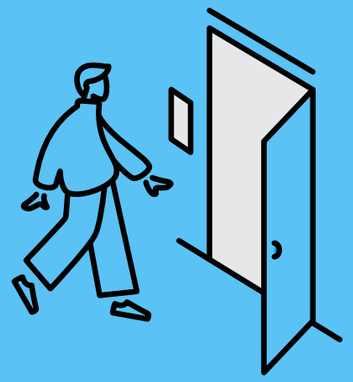
BSc, MEDICAL PHYSICS '10
MSc, BIOMEDICAL PHYSICS '12
PhD, BIOMEDICAL PHYSICS '20

Student Experience

First Year Science Office

To ensure you have a smooth transition from high school to university, we created an office that offers advice on academic, administrative and personal matters for most first-year science students. Whenever you have questions or concerns, drop by and visit this experienced team of professionals who are here to support you.

New for 2020, we have a Peer Mentor program which pairs upper-year students with first-year students in their program. Once you're matched, your peer mentor can guide you through your first year and answer questions about anything related to student life. From academics, labs, study skills or even where to find the best pizza near campus, your peer mentor will be there to help you cross the bridge from high school into university life.



Community Builder

To experience the full Ryerson experience, biomedical sciences undergraduate Samantha Sanayhie recommends unhesitatingly: "Don't hold back! Campus life and student involvement are crucial. My university experience would not have been so amazing without all of the student groups and events."

During second year, Samantha plunged right in, landing a position representing second-year students with the Biomedical Science Course Union. "It truly allowed me to step forward and grow into the person I am today," she says. But that was just the start of her student leadership career. Since then, she's also been a Science Orientation Leader and holds executive roles in the course union, Chemistry & Biology Council and STEM Fellowship Ryerson.

"An active student life gives you so many ways to grow as a person and to participate in great events, whether social, academic or networking. I know it can be intimidating, so just start small. Say hi to someone new. Attend a campus event. Soon, you'll feel you belong to this amazing community."

Samantha Sanayhie
BIOMEDICAL SCIENCES STUDENT

Learning Outside the Classroom

The Faculty of Science offers experiential learning opportunities that enrich your academic experience, prepare you for the world of work and expand your thinking. Whether they take place in the classroom, community, lab or workplace, these experiences will give you memories and skills to last a lifetime.

Get Involved

Connect with students who share your interests and goals with over 25 science groups. Through these extracurricular activities, you can network, develop teams, host events, organize initiatives, deliver services and gain valuable leadership experience.

Science Discovery Zone

Looking for the hands-on learning that comes with starting a venture or impact project? Want to work directly with industry leaders and entrepreneurs while solving a real world problem? The SDZ is the space you need for support, credit courses, workshops and networking events.

Global Science Citizen

Keen to live, work or study abroad and experience a new culture? The Faculty of Science has exchange and research partnerships in different countries around the world: Australia, China, England, France, Germany, Hong Kong, India, Netherlands, Singapore. There is something for every Science program. Go on exchange for a semester or full year and take some courses for academic credit, or engage in research learning at a prestigious university like University College London.

Research Opportunities

Undergraduate students in the Faculty of Science regularly participate in research with professors and graduate students. Being directly involved in the creation and exploration of knowledge is invaluable learning.

From my research experience, I got a sense of what kind of work I wanted to do. In a few years, I advanced from my first step inside a lab to ranking in the top 10% of 6,500 submissions to the Undergraduate Awards. I am so grateful for the research opportunities at Ryerson."

Morla Phan
BSc, BIOMEDICAL SCIENCES '17

Alumni Spotlight

Dara Akerewusi
BSc, BIOMEDICAL SCIENCES '19

Dara participated in a summer research exchange at University College London in the School of Pharmacy in 2018, and led to her current career. "Currently, I work as a clinical researcher on the SUMMIT study at University College London Hospital in England. SUMMIT is the largest lung cancer screening program in the UK. Today, I am honored to be in a role that involves using my biomedical science skills and knowledge to conduct research among at-risk cancer patients. In May 2020, I was asked to support COVID-19 vaccination efforts developed by the University of Oxford. All of the experiences that I accumulated while at Ryerson have prepared me for where I am today."

Getting outside of her comfort zone to participate in this unique opportunity is something that Dara recommends all students make a priority.

Get involved in community engagement opportunities, seek advice from professors and staff in the Faculty of Science, and also take full advantage of the social opportunities to build a professional network. As important as it is to create an excellent academic profile, it is as equally important to create a profile outside of academics."

Our Programs

Ryerson Science offers the best of both worlds – big ideas and solutions that matter. From learning how gene expression affects aging to creating wealth through financial models, we will help you innovate with impact.

Four Year Full-time or Five Year Co-op?

All of our programs lead to an honours Bachelor of Science (BSc) degree, and practical work experience is available through co-op options in each one.

Love Science But Not Sure Which Field to Pursue?

Undeclared Science is a one-year entry option that allows you time to explore foundation courses in Biology, Chemistry and Medical Physics before deciding which to select as your major. Once you know where your interests and goals lie, all of your completed courses will be credited to your new program.

Investigate and Experience It All

Ryerson is known for the research opportunities and experiential learning it provides students. If you love to form and test hypotheses, experiment in a lab, team up for competitions or take on work placements, you have all of those options here. We even have courses that teach you how to use the scientific method to develop a venture and build your career. After finishing your degree, you'll be ready to pursue higher education, enter a profession or launch your own business.

Eye on Innovation

Just one week before a Ryerson pitch competition, biology student student Vahid Safar, scrambled to enter his idea of an autonomous camera system that uses solar power and computer vision. The concept won him an early innovation prize and funds to develop the technology. He's now connecting with industry experts and developing prototypes for red-light traffic cameras, remote monitoring of farm crops and other industrial applications.

Vahid Safar

BIOLOGY STUDENT

Match-up, Start-up

Diving into Ryerson's innovation culture, computer science student Camalee Cogle started not one but two ventures. As a skin and hair junkie tired of cycling through new, big-brand products every month, Camalee developed Melahayz. The online platform sources high-quality, natural beauty products and gives their small/medium sized business owners wider reach. Her second platform, Bright-I, is transforming the way schools help students access mentorship opportunities. Using a secured matching system, the digital solution expands mentorship beyond teachers alone and into communities.

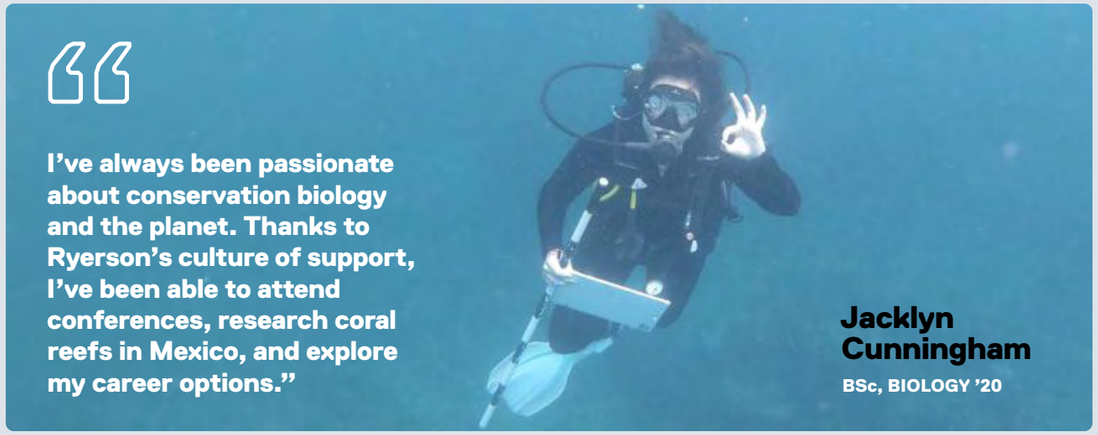
Camalee Cogle

COMPUTER SCIENCE STUDENT

Biology

From Single Cell to Living Well

Explore and understand the nature of all living organisms, from bacteria and cells to plants and animals. There are so many ways to know and change the world with a foundation in biology! Opportunities for research in leading industries and for laboratory training will prepare you for a career in many fields. If you are also interested in other disciplines, you can combine them for a specialization in biophysics, bioinformatics and computational biology, environmental biology or management science.



I've always been passionate about conservation biology and the planet. Thanks to Ryerson's culture of support, I've been able to attend conferences, research coral reefs in Mexico, and explore my career options."

Jacklyn Cunningham
BSc, BIOLOGY '20

Dr. Janet Koprivnikar
PROFESSOR OF BIOLOGY

"I'm a disease ecologist focused on researching animal parasites. I investigate the interaction of hosts, parasites and their environment, and the massive impact they can have. Biology is fundamentally about interconnectedness, and it's fascinating to learn how this happens at every level. With the breadth and variety in our program, students really get an excellent sense of all the possibilities out there for their degree."

"The Ryerson community is the city's most loving, compassionate and giving academic family. Ryerson inspired me to look beyond challenges, seize opportunities and forge my own path as the Director, Partnerships and Collaborations at Visions of Science, where I now promote STEM learning among marginalized communities."

Camilo Garay
BSc, BIOLOGY '12
MSc, MOLECULAR SCIENCE '15

Biomedical Sciences

All's Well That Mends Well

Do you want to know how molecular and cellular mechanisms drive health, infection and the development of disease in living organisms? With a deep understanding of biomedical sciences, such as molecular and cell biology, genetics and genomics, and microbiology, you can engage in medical research and prepare yourself to succeed in the biotechnology and pharmaceutical industries. Ryerson's close relationship with the biomedical industry means that great co-op, volunteer and research options are available to elevate your learning and value to employers.

I was most excited about studying courses like immunology, medical microbiology, and physiology. I'm so happy with my decision to pursue my passion for science here. My goal is to study translational medicine in graduate school and eventually become an ER physician."

Gurleen Braich

BIOMEDICAL SCIENCES STUDENT

Dr. Sarah Sabatinos

PROFESSOR OF BIOMEDICAL SCIENCES

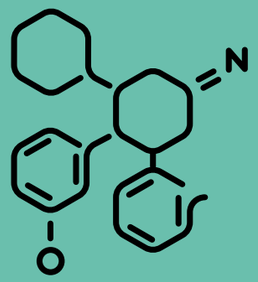
"I research how environmental stresses like heat, starvation and toxic chemicals affect cell health and lead to aging and disease. I also explore how climate change is impacting ecosystems and DNA stability in crops and wildlife. Science research is really cool because you're like a detective investigating how things work -- and you just never know what you'll find! It's like an amazing puzzle."

"I chose Ryerson because I wanted technical skills on top of theoretical knowledge. I had many opportunities to grow personally and professionally through leadership, communication and teamwork skills. It's been an interesting and challenging journey."

Kyle Cheung

BSc, BIOMEDICAL SCIENCES '18
MOLECULAR SCIENCE MSc STUDENT

Chemistry



When Life Gives You Lemons, Investigate Their Properties and Form New Substances

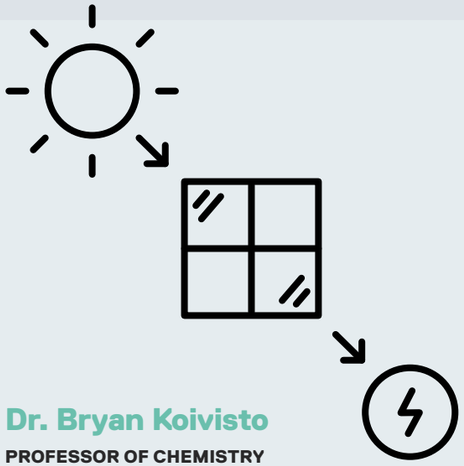
Chemistry is a part of everything we do, such as creating new and useful products, protecting the environment or fighting disease. As a chemistry student, you will combine research and application to expand current practices and improve the quality of life. You may opt to specialize in chemistry combined with a biology minor or applied physics, if those areas also interest you. A lot of learning takes place in the laboratory, making this an ideal program if you enjoy using knowledge and research to engage in real-world chemical science.

"I was attracted to Ryerson by the chance to embed co-op work experience into my degree. The professors are friendly and there are tons of resources to help you excel. I'm now studying in a fully-funded PhD program at Rutgers University."

Kelvin Urbina
BSc, CHEMISTRY '20

"I was attracted to the downtown experience in Canada's leading science and technology innovation hub. I've gained hands-on skills in techniques not traditionally taught in undergrad and exposure to how real research labs work."

Kaitlyn Silverthorne
CHEMISTRY STUDENT



Dr. Bryan Koivisto
PROFESSOR OF CHEMISTRY

"Ryerson's undergraduate chemistry program is really one of Canada's most innovative. It offers all the rigour of a traditional program, but also gives students early exposure to the culture of chemical research, discovery and innovation. My research lab explores how light interacts with matter and how to convert its energy. We're now developing solar cells that can be installed as transparent films on windows. Imagine the impact: skyscrapers converted into green energy power generation stations!"

Computer Science

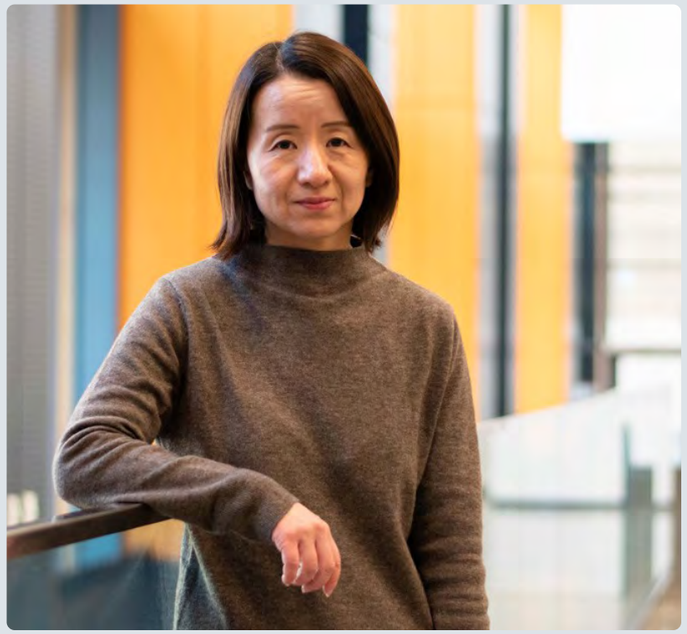
Byte Club

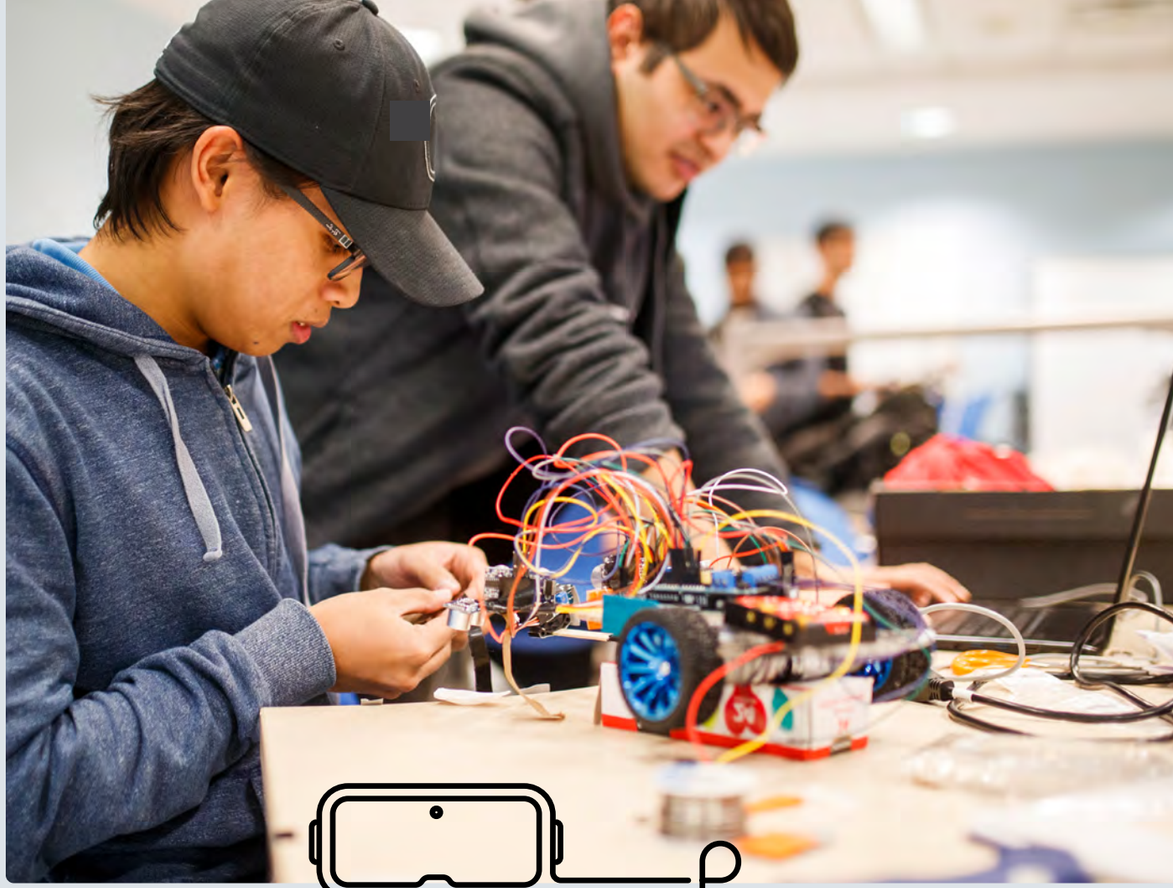
If you want to influence the hyperconnected digital landscape, become fluent in programming languages, and learn about data structures, networks, operating systems, and cyber technologies, this is the program for you. You can study software engineering, computer vision, robotics, artificial intelligence and platform-based development. While you're at it, explore human-computer interaction, computer graphics, virtual reality, and computer security. Offering part-time study and first-year direct entry, you may opt to concentrate in software engineering or specialize in management science.

"The computer science program at Ryerson really emphasizes how to actually apply abstract theoretical concepts. My own research specialty is in recommender systems. With so much data online, it can be hard to find the right information at the right time. Recommender systems learn what users like and then use that knowledge to recommend things that users may like next, which creates a more positive online experience."

Dr. Cherie Ding

PROFESSOR OF COMPUTER SCIENCE





Ryerson's co-op program, downtown campus and extracurricular organizations all guided me to where I am today. After interning in software engineering at Amazon, I was hired on full-time after graduation. Now, I'm about to join a technology-urbanism start-up in Montreal."

Mitchell Mohorovich

BSc, COMPUTER SCIENCE '18

"I love problem solving, finding patterns and thinking up new inventions. The courses teach important concepts, and the professors give amazing guidance. After graduation, I want to become a software engineer."

Vanessa Landayan

COMPUTER SCIENCE STUDENT

Financial Mathematics

Good Things Come to Those Who Rate

If you're attracted to the fast-paced and competitive world of finance, this is the program that will teach you to drive our economy forward by leveraging cash flow and creating wealth. Gaining an advanced expertise in mathematics, you will analyze markets, manage investments and evaluate risk. In addition to in-class study, there are opportunities for work placement, research and practical investing experience. You will also work on real-world case studies on current issues within the financial industry.

"Financial mathematics was the perfect balance for my technical and interpersonal skills. I was surprised at the variety of career paths. After graduating, I was hired at RBC Capital Markets where I'm now a Quantitative Analyst and Scrummaster in the Risk-Facing Core Quant team."

Sadia Billoo

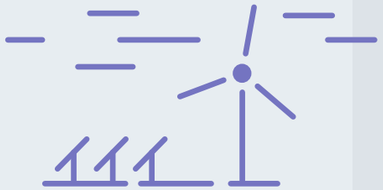
BSc, FINANCIAL MATHEMATICS '19

"The program checked off all my boxes. I've gained deeper understanding of math and finance, with room still to study a minor. Being so close to Toronto's financial district helps with connections and amazing opportunities such as conferences, internships and events."

Karolina Surowiec

FINANCIAL MATHEMATICS STUDENT

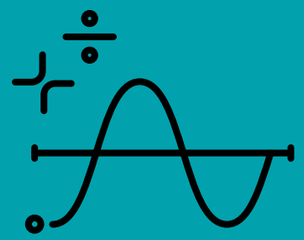
"Ryerson's Financial Mathematics Research Group is one of the largest in Canada, and our work is cutting edge! Right now, I'm exploring how to combat climate change by making it attractive for financial markets to support eco-friendly investment projects. We all have a serious social responsibility here, and mathematics has the power to make a huge contribution. With campus just steps from the Toronto financial district, I love helping students connect with industry and giving them exposure to the latest applications in artificial intelligence (AI), machine learning and more!"



Dr. Alexey Rubtsov

PROFESSOR OF MATHEMATICS

Mathematics and its Applications



Easy as π

In this program, you can study math on its own, combine it with computer science or economics, or specialize in management science. The flexibility and range of mathematics is exciting if you're a person who loves to solve problems using logic, principles and your own imagination. As a graduate from this program which offers work placement and research opportunities, you'll become a valued and in-demand professional who can innovate solutions for business, government or industry.

After visiting campus, I knew I wanted to come to Ryerson, and I haven't regretted it at all. Upper-year classes are challenging and so worth the effort! I loved learning about mathematical biology, and the applications could potentially help so many lives!"

Pam Huntley
MATH AND ITS APPLICATIONS STUDENT

"I love using the language of mathematics to describe and solve real world problems. Ryerson's math department has experts in many diverse application areas, and students have opportunities to work one-on-one with us on research. My specialty is in building mathematical models to gain insight into the progression of cancer and how it responds to treatment. The results can help improve patient survival. I think that's really cool!"

Dr. Kathleen Wilkie
PROFESSOR OF MATHEMATICS

"I was attracted to Ryerson for its city experience but community feel. The mathematics program helped me develop critical thinking, problem solving and attention to detail — skills that I now use daily as a project manager."

Gabriela Franco
BSc, MATH AND ITS APPLICATIONS '17

Medical Physics

You Ain't Screened Nothing Yet

Combine your interests in medicine and physics to explore the ways in which physics is applied in the diagnosis and treatment of illnesses. You will apply physics-based concepts and methodologies to procedures such as medical imaging, radiation therapy, radiation protection and dosimetry. If you're interested in helping businesses improve and achieve their goals, you may want to specialize in management science. Medical physics is a unique field that prepares you to make a difference in healthcare and medicine.

"In my research, I find practical ways to improve cancer treatment technology, particularly radiation therapy. I work with X-ray photons, very high energy light used to treat cancer. I've lately been trying to improve pancreatic cancer outcomes through combined use of nanoparticles and X-rays. I'm fascinated by the many applications of radiation such as medical imaging, detection for border security, power generation and communications."

Dr. James Gräfe

PROFESSOR OF MEDICAL PHYSICS

I chose Ryerson because the program has applications that can positively impact people's lives. Campus is in a great location and everyone is friendly and helpful. I've gained a strong foundation in the mathematics, physics, and coding needed to continue pursuing physics."

Faheem Mosam

MEDICAL PHYSICS STUDENT

"The program is applicable in many fields beyond medical physics. Years later, I'm still using what I learned. I'm now passionate about my career as a defence scientist in radiation and nuclear technology for Canada's Department of National Defence."

Helen Moise

MSc, BIOMEDICAL PHYSICS '10

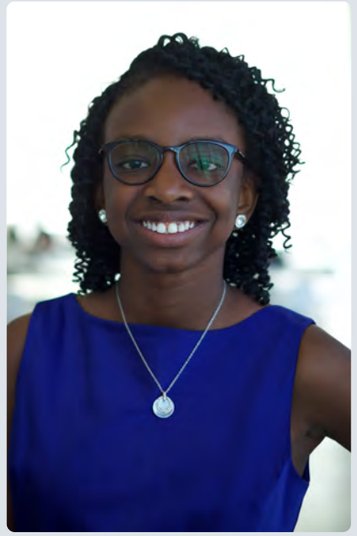
Co-op Program

Every one of our science programs has an optional co-op stream. Make real-world, work experience a formal part of your academic program and boost your resume before you graduate. Co-op extends the regular, full-time program by one year, but the benefits are huge. Build your professional network. Apply your knowledge in a live work environment. Practice soft skills such as communication, time management and problem solving. Plus, earn money while you work.

"Co-op has been the most valuable piece of my Ryerson experience. It's the cherry on top! Through work terms in data science at TD Bank, I've expanded my skills, boosted my confidence and applied course material I never thought I'd need. You graduate with almost two full years of industry experience and a massive professional network."

Ben Cornish

FINANCIAL MATHEMATICS STUDENT



"Through co-op, I got hands-on experience in a variety of roles and companies, including an e-commerce start-up and two of Canada's biggest banks. Collaborating daily with developers, UI/UX designers, business analysts, I saw firsthand how software products are built in industry. Co-op challenged me out of my comfort zone and helped me grow tremendously."

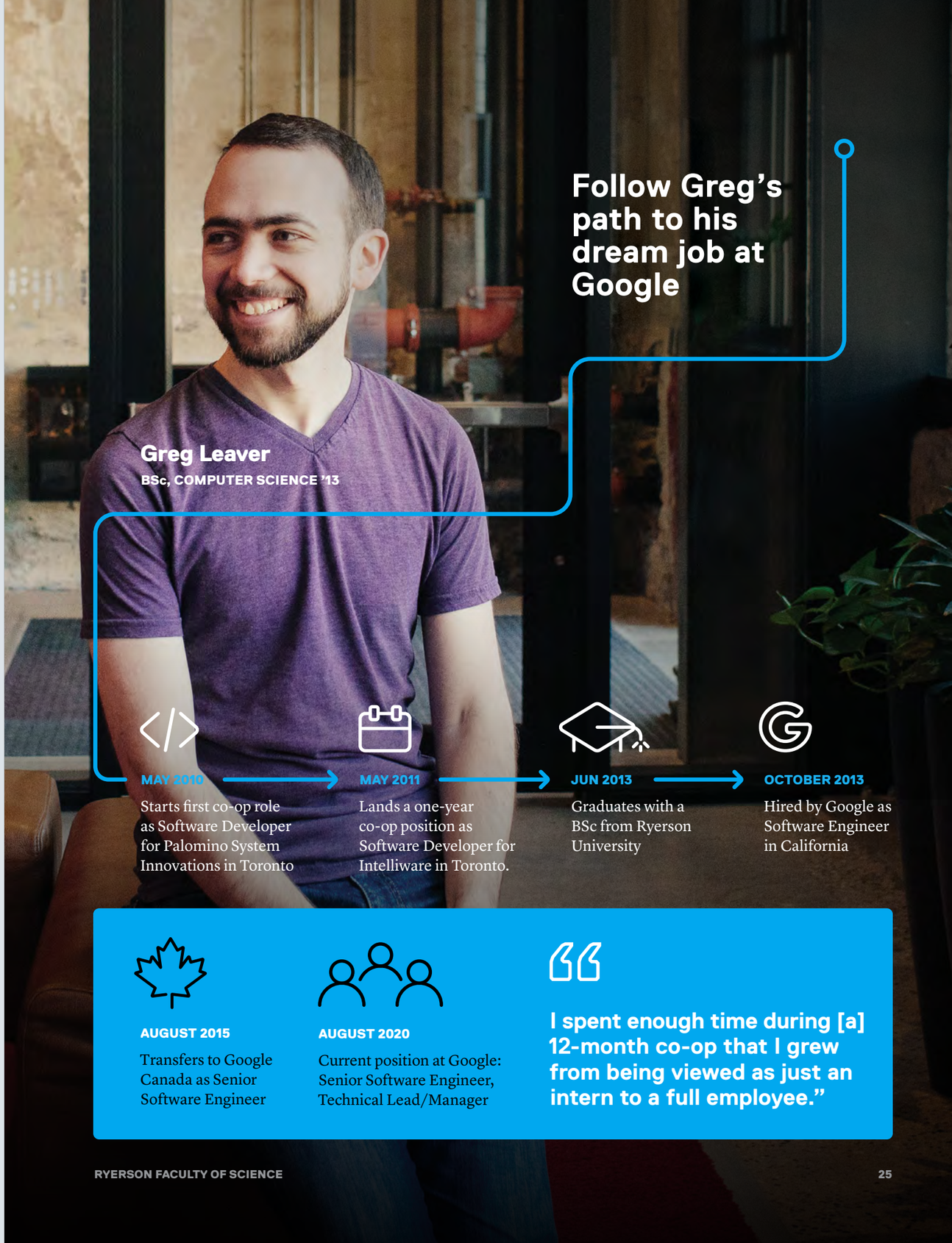
Deborah Mepaiyeda

BSc, COMPUTER SCIENCE '20

"ServiceEcho has employed co-op students for years. We love their fresh thinking and enthusiasm. Students build their professional network and apply what they've learned — and our company gets access to diverse, talented, hardworking individuals. I'm a Ryerson co-op graduate too, and now as a co-op employer, it's incredibly rewarding to contribute to a stronger knowledge-based economy in Canada."

Jason Silva

MANAGING DIRECTOR SERVICEECHO
BSc, COMPUTER SCIENCE '03



Follow Greg's path to his dream job at Google

Greg Leaver
BSc, COMPUTER SCIENCE '13

MAY 2010
Starts first co-op role as Software Developer for Palomino System Innovations in Toronto

MAY 2011
Lands a one-year co-op position as Software Developer for Intelliware in Toronto.

JUN 2013
Graduates with a BSc from Ryerson University

OCTOBER 2013
Hired by Google as Software Engineer in California

AUGUST 2015
Transfers to Google Canada as Senior Software Engineer

AUGUST 2020
Current position at Google: Senior Software Engineer, Technical Lead/Manager

"I spent enough time during [a] 12-month co-op that I grew from being viewed as just an intern to a full employee."

Career Opportunities

We offer industry-leading resources to help you land a job – before and after graduation. Tailored to your needs and aspirations, our programs, resources, staff and opportunities build the experience and confidence employers value and help you translate knowledge into action. Your career starts right here – and right now.

Which science discipline are you most interested in?

Science-Tailored Career Advice

Faculty-based career specialists are connected to industry and will help you with every step of the process. Whether you're interested in a professional program, graduate school, or heading straight into the workforce, our career specialist can help you plan your path.

Get career support even after you graduate. Ryerson alumni can access Career Services up to five years after graduation.

Science

Pursue knowledge and apply it to the physical and natural world around you. Follow systematic methodology and make decisions based on evidence.

Technology

Apply scientific principles, and use machines and cutting-edge tools to solve real world problems.

Mathematics

Use theories and concepts in new, innovative ways to generate solutions for modern problems. Cross-disciplinary in nature, math touches all areas of science.

Interested in studying the living things around us — from cells to plants and animals? Want to unlock the physical mysteries of our world?

Biology

INDUSTRY	HEALTH	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Medical technologies, research and development, plant management	Biotechnology, clinical science, community health	Agricultural science, environmental policy, research and development	Healthcare administration, insurance, entrepreneurship	Graduate school, dentistry, law, pharmacy, veterinary medicine

Fascinated by the principles of biology and how they relate to human health, medicine and disease?

Biomedical Sciences

INDUSTRY	HEALTH	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Biomedical science, medical technologies, pharmaceuticals	Biotechnology, clinical science, genetic counselling	National defense, science policy, technology and innovation	Healthcare administration, product analysis, project management	Graduate school, law, medicine, pharmacy

Want to use matter, energy and their interactions to create new and useful materials and products, protect the environment or fight disease?

Chemistry

INDUSTRY	HEALTH	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Data science, medical technologies, environmental technology	Clinical pathology, community health, environmental public health	Agricultural science, science policy, research and development	Healthcare administration, product analysis, project management	Graduate school, law, medicine, pharmacy, veterinary medicine

Intrigued by the science behind the diagnosis and treatment of diseases like cancer? Want to use physics to develop medical and healthcare technologies such as radiation, MRIs and CT scans?

Medical Physics

INDUSTRY	HEALTH	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Computational physics, industrial physics, research and development	Medical diagnostics, medical dosimetry, medical informatics, radiation therapy	Environmental science, regulatory authorities, technological innovation	Healthcare administration, product analysis, entrepreneurship	Graduate school, law, medicine, veterinary medicine, medical physics, physics

Enjoy working with mobile devices, websites and creating applications? Fascinated by topics like artificial intelligence, robotics or virtual reality?

Computer Science

INDUSTRY	HEALTH	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Artificial intelligence, robotics, software programming, game design	Health informatics, medical robotics, healthcare IT	Information systems security, information technology, national defense	Data modelling, software architecture and development, web applications	Graduate school, law, computer science, data science

Appreciate math and want to apply concepts to generate wealth? Have an interest in economics, risk analysis, investments and the stock market?

Financial Mathematics

INDUSTRY	CONSULTING	FINANCE	GOVERNMENT	BUSINESS	FURTHER EDUCATION
Actuarial science, computational mathematics, data science, risk analysis	Financial accounting, financial planning, investment services	Accounting, advising, banking, financial analysis, market research	Auditing, budget analysis, financial examining	Business intelligence, information technology, insurance risk management	Graduate school, law, economics, mathematics, MBA

Skilled at math and looking to apply logic to other areas of scientific study such as the human nervous system, complex networks, statistics or another area of interest?

Mathematics & its Applications

INDUSTRY	CONSULTING/FINANCE	HEALTH	GOVERNMENT	FURTHER EDUCATION
Actuarial science, computational mathematics, data science, risk analysis	Accounting, banking, financial planning, statistical analysis	Biomathematics, biostatistics, mathematical medicine, public health	Auditing, budget analysis, business analysis, statistics	Graduate school, law, economics, mathematics, MBA

Admissions

Prerequisite Subjects

LEGEND: FT = FULL TIME, PT = PART TIME

DEGREE PROGRAM/ FORMAT	ONTARIO	AMERICAN CURRICULUM (Honours or Advanced Placement Recommended)	INTERNATIONAL BACCALAUREATE (HL or SL)	OTHER EDUCATION SYSTEMS
Science [BSc (Hons)] FT: Four Year; Five Year Co-operative •Biology •Chemistry •Medical Physics •Undeclared (first-year studies only)	English/Anglais (ENG4U/EAE4U preferred), Advanced Functions (MHF4U), and two of Physics (SPH4U), Chemistry (SCH4U) or Biology (SBI4U)	Grade 12 English, senior-level Math with Calculus, and two of Biology, Chemistry or Physics	English, math (AA HL or SL, or AI HL or SL), and two of biology, chemistry or physics	English, Math with Calculus, and two of Biology, Chemistry or Physics
Biomedical Sciences [BSc (Hons)] FT: Four Year; Five Year Co-operative	English/Anglais (ENG4U/EAE4U preferred), Advanced Functions (MHF4U), and two of Physics (SPH4U), Chemistry (SCH4U) or Biology (SBI4U)	Grade 12 English, senior-level Math with Calculus, and two of Biology, Chemistry or Physics	English, math (AA HL or SL, or AI HL or SL), and two of biology, chemistry or physics	English, Math with Calculus, and two of Biology, Chemistry or Physics
Computer Science [BSc (Hons)] FT: Four Year; Five Year Co-operative PT: First-Year Entry	English/Anglais (ENG4U/EAE4U preferred), Advanced Functions (MHF4U), one of Physics (SPH4U) or Chemistry (SCH4U) or Biology (SBI4U), and either Calculus and Vectors (MCV4U) (preferred) or Mathematics of Data Management (MDM4U)	Grade 12 English, senior-level Math with Calculus and one of Physics, Chemistry or Biology	English, math (AA HL or SL, or AI HL) and one of physics, chemistry or biology *AI SL is not acceptable.*	English, Math with Calculus and one of Physics, Chemistry or Biology
Mathematics and its Applications (BSc) FT: Four Year; Five Year Co-operative	English/Anglais (ENG4U/EAE4U preferred), Advanced Functions (MHF4U), one of Calculus and Vectors (MCV4U) or Mathematics of Data Management (MDM4U), and one of Physics (SPH4U) (recommended), Biology (SBI4U) or Chemistry (SCH4U)	Grade 12 English, senior-level Math with Calculus, and one of Physics (recommended), Biology or Chemistry	English, math (AA HL or SL, or AI HL), one of physics (recommended), biology or chemistry *AI SL is not acceptable.*	English, Math with Calculus and one of Physics (recommended), Biology or Chemistry
Financial Mathematics [BSc (Hons)] FT: Four Year; Five Year Co-operative	English/Anglais (ENG4U/EAE4U preferred), Advanced Functions (MHF4U), one of Calculus and Vectors (MCV4U) or Mathematics of Data Management (MDM4U), and one of Physics (SPH4U) (recommended), Biology (SBI4U) or Chemistry (SCH4U)	Grade 12 English, senior-level Math with Calculus, and one of Physics (recommended), Biology or Chemistry	English, math (AA HL or SL, or AI HL), one of physics (recommended), biology or chemistry *AI SL is not acceptable.*	English, Math with Calculus and one of Physics (recommended), Biology or Chemistry

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