



NANOTECHNOLOGY ENGINEERING

uwaterloo.ca/nanotechnology

97.2% of Nanotechnology Engineering students found co-op jobs in 2019

*Manipulate matter
at the atomic level*

Some of today's most innovative scientific and engineering breakthroughs are happening at scales smaller than we ever thought possible. You'll use concepts from quantum physics, chemistry, and electronics to research, design, and manipulate systems measured in billionths of a metre.

In first year, you'll take courses in fundamental science and engineering principles, becoming immersed in a specialty that crosses boundaries between traditional disciplines. In upper years, you'll specialize in the topics that interest you most through your choice of interdisciplinary, design-based courses such as nano-electronics and nano-biotechnology. Top it off with hands-on labs, two years of work experience, and a fourth year design project, and you'll be ready to use your knowledge of materials, electronics, and nanomedicine to revolutionize technologies in a variety of industries.

YOUR FIRST YEAR

FIRST TERM

- › Nanotechnology Engineering
- › Nanotechnology Engineering Practice
- › Programming
- › Linear Algebra
- › Chemical Principles
- › Societal and Environmental Impacts of Nanotechnology
- › Calculus 1

SECOND TERM

- › Nanomaterials Health Risks
- › Computational Methods
- › Materials Science and Engineering
- › Physics
- › Linear Circuits
- › Calculus 2

OVER 7,000 co-op employers from around the globe

KICK-START YOUR IDEAS

HALION DISPLAYS

We provide the support you need to bring your ideas to life. This includes the Sedra Student Design Centre, Velocity, and entrepreneurial funding opportunities.

Nanotechnology students Matt Lavrisa and Ryan Marchewka collaborated to found the startup Halion Displays, creating a reflective display technology. It harnesses ambient light to increase battery longevity and improve the usability of devices in bright conditions. Thanks to support and funding from Spectrum 28, Engineering the Future Fund, and Enterprise Co-op, these graduates are well on their way to launching a successful business.



UNIVERSITY OF
WATERLOO



Waterloo offers the

WORLD'S LARGEST CO-OP PROGRAM

CO-OP AT WATERLOO = REAL WORLD EXPERIENCE

We'll help you navigate job applications, résumés, and interviews. You'll benefit from trying different roles and/or industries to find the one that fits you while building your work experience and reinforcing your in-class learning. It all adds up to a competitive advantage for your post-graduation job search.

Nanotechnology Engineering students are part of the Stream 8S sequence.

STREAM 8S STUDY AND CO-OP SEQUENCE

YEAR	TERM	STREAM 8S
1	Fall	Study (1A)
	Winter	Study (1B)
	Spring	Work
2	Fall	Study (2A)
	Winter	Work
	Spring	Study (2B)
3	Fall	Work
	Winter	Work
	Spring	Study (3A)
4	Fall	Study (3B)
	Winter	Work
	Spring	Work
5	Fall	Study (4A)
	Winter	Study (4B)

Fall term: September to December
Winter term: January to April
Spring term: May to August



There's no shortage of ways to get involved – you'll have an outstanding education and a vibrant student experience.

BEYOND THE CLASSROOM

As a Waterloo Engineer, it's easy to get in on the action. You can join the Engineering Society, make a difference with Engineers Without Borders, or apply your studies with a student design team. If you have questions about student life or want to shadow a student for a day, our Engineering Ambassadors can help!

uwaterloo.ca/engineering-student-ambassadors

OUT IN THE WORLD

The rapidly expanding field of nanotechnology is pushing the boundaries of innovation. Nanotechnology engineers can help build faster, smaller, and more powerful computing devices, create more accurate medical diagnostic equipment, and use nanoparticles to improve medication delivery.

EXPLORE YOUR INTERESTS

Our program lets you specialize based on your interests:

- > Nano-engineered materials
- > Nano-electronics
- > Nano-instrumentation
- > Nano-biosystems

EMPLOYMENT OPPORTUNITIES

- > Nanoscale therapeutics development
- > Implantable device design
- > Academic research
- > Biosensor design
- > Environmental purification and cleanup
- > Nanomaterial development

FACULTY OF ENGINEERING
UNDERGRADUATE ADMISSIONS

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