

NANOTECHNOLOGY ENGINEERING

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.

95.7%

of Nanotechnology Engineering students found co-op jobs in Winter 2021

7,000+

co-op employers from around the globe

uwaterloo.ca/nanotechnology-engineering

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

KICK-START YOUR IDEAS

We provide the support you need to bring your ideas to life. This includes the Sedra Student Design Centre, the world's largest free incubator space (Velocity), our fourth-year Capstone Design project, the Enterprise Co-op program, and funding opportunities to help get your business off the ground.



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

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



SCAN TO WATCH THE
NANOTECHNOLOGY
ENGINEERING VIDEO

EMPLOYMENT OPPORTUNITIES

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

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FACULTY OF ENGINEERING
enginfo@uwaterloo.ca | uwaterloo.ca/engineering

200 UNIVERSITY AVE. W., WATERLOO, ON, CANADA N2L 3G1

uwaterloo.ca/future-students