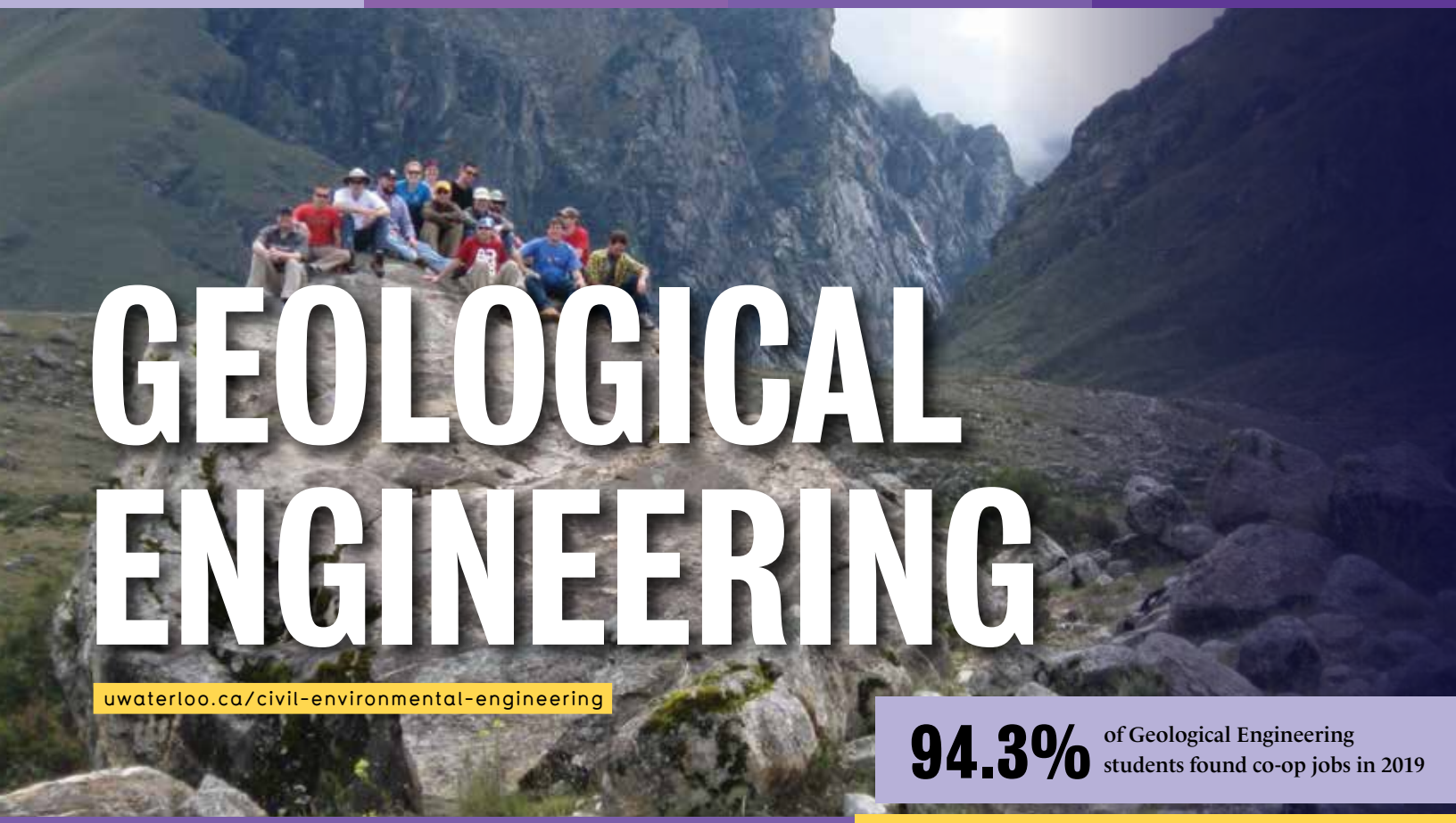

GEOLOGICAL ENGINEERING

uwaterloo.ca/civil-environmental-engineering

94.3% of Geological Engineering students found co-op jobs in 2019

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

Experience adventure and make a difference

In this program, the world is your classroom. Geological Engineering combines Earth Sciences with Civil Engineering; you'll test your skills on field trips to northern Ontario and Peru while learning how to apply geological knowledge to engineering design.

In first year, you'll develop a foundation of mathematics, geology, and civil engineering. By upper years, you'll have the skills to solve a real-world problem with your fourth year design project, tackling anything from sustainable mine design to landslide protection systems. Top it off with hands-on labs and two years of work experience, and you'll be ready to design tomorrow's subsurface infrastructure, improve safety from geohazards, and develop our natural resources.

YOUR FIRST YEAR

FIRST TERM

- Environmental and Geological Engineering Concepts
- Chemistry
- Mechanics 1
- Calculus 1
- Linear Algebra
- Communication in the Engineering Profession

SECOND TERM

- Earth Engineering
- Computational Methods
- Electrical Circuits and Instrumentation
- Mechanics 2
- Calculus 2

KICK-START YOUR IDEAS

THIRDEYE MINING TECHNOLOGIES

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

Geological Engineering student Anu Sandhu co-founded ThirdEye Mining Technologies, a company that allows miners to connect with those above ground. ThirdEye developed an emergency management system accompanied with a wearable smart jacket that monitors heart rate, geo-location, and noxious gases to help monitor miner safety below the ground.

UNIVERSITY OF WATERLOO

Waterloo offers the

WORLD'S LARGEST CO-OP PROGRAM

CO-OP AT WATERLOO = REAL WORLD EXPERIENCE

You'll have an unrivaled opportunity to gain paid work experience before you even graduate. We'll help you navigate job applications, résumés, and interviews; you'll have the added benefit of trying out different roles and/or industries to find the one that fits you while building your work experience and reinforcing your in-class learning out in the real world. It all adds up to a competitive advantage after graduation. Geological Engineering students are part of the Stream 4 sequence.

STREAM 4 STUDY AND CO-OP SEQUENCE

YEAR	TERM	STREAM 4
1	Fall	Study (1A)
	Winter	Work
	Spring	Study (1B)
2	Fall	Work
	Winter	Study (2A)
	Spring	Work
3	Fall	Study (2B)
	Winter	Work
	Spring	Study (3A)
4	Fall	Work
	Winter	Study (3B)
	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 both an outstanding education, as well as 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 any questions about student life or want to shadow a current student for a day, our Engineering Ambassadors can help!

uwaterloo.ca/engineering-student-ambassadors

OUT IN THE WORLD

Geological engineering is everywhere. Almost every structure you see around you is supported by soil or rock, and the smartphone in your hand couldn't exist without elements mined from the earth. As this field develops, the work of today's geological engineers reflects society's interest in sustainability, risk management, and creating a safer world. Practicing geological engineers explore the intricacies of the Earth's building materials – soil, rock, and water – to protect infrastructure and communities from landslides and earthquakes, develop and extract natural resources safely, and design the tunnels of modern subway systems.

EXPLORE YOUR INTERESTS

Our program lets you specialize based on your interests:

› Geotechnical engineering
› Geochemistry
› Geology
› Geophysics
› Hydrogeology

1
OF ONLY 2 GEOLOGICAL ENGINEERING PROGRAMS available in Ontario

TOP INDUSTRIES FOR CO-OP

› Landslide protection system design and geohazard analysis
› Mining consulting
› Sustainable resource development
› Building foundation design and construction
› Geotechnical engineering

SCAN WITH PHONE CAMERA TO WATCH

FACULTY OF ENGINEERING
UNDERGRADUATE ADMISSIONS

enginfo@uwaterloo.ca

UWaterlooEngineering @WaterlooEng @UWaterlooEng

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

uwaterloo.ca/future-students

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