



Adding Value to Your Team

Environmental Engineering at the University of Guelph draws on the traditional disciplines of chemical, civil and mechanical engineering to deliver a truly unique program. This comprehensive program equips students to understand and solve practical problems that encompass air, water, soil and waste. Students develop technical skills in terms of design and project management and strengthen their ability to effectively communicate to stakeholders at all levels.

In addition to core engineering analysis and design courses, students study air pollution control, groundwater quality, solid and hazardous waste management, sustainable energy solutions, site remediation, environmental engineering systems and water/wastewater treatment.

University of Guelph Advantage

- Students begin their first work term after completing two years of their academic program and mastering the core skills needed to integrate into the workplace
- Co-op students complete a full semester course focused on job search skills and professionalism in the workplace
- Students are available for four or eight-month work terms
- Recruitment timelines are flexible, and employers can find the right student through our efficient, streamlined employment process

Student Strengths

- Fundamental knowledge of engineering concepts, as well as physical, mathematical and biological sciences
- Effective project management, problem solving, communication and teamwork acquired from hands-on design courses
- Strong research skills developed through the design process, management and financial feasibility
- Experience writing formal reports including proposals, engineering design reports and technical lab reports
- Solid understanding of a variety of modeling and design software
- Exposure to a variety of field, laboratory and office work in various employment sectors including consulting, industry, research, and municipal, provincial and federal governments

Environmental Engineering Course Sequencing

YEAR	FALL (SEPT-DEC)	WINTER (JAN-APRIL)	SUMMER (MAY-AUG)
ONE	<ul style="list-style-type: none"> • GENERAL CHEMISTRY I • ENGINEERING ANALYSIS • PHYSICS WITH APPLICATIONS • ENGINEERING AND DESIGN I • CALCULUS I 	<ul style="list-style-type: none"> • GENERAL CHEMISTRY II • CALCULUS II • ENGINEERING MECHANICS I • INTRODUCTION TO PROGRAMMING • INTRODUCTORY ELECTRICITY AND MAGNETISM 	OFF
TWO	<ul style="list-style-type: none"> • FLUID MECHANICS • ENGINEERING SYSTEMS ANALYSIS • APPLIED DIFFERENTIAL EQUATIONS • INTRODUCTION TO CO-OPERATIVE EDUCATION • <u>ONE OF</u>: INTRODUCTION TO MOLECULAR AND CELLULAR BIOLOGY OR INTRODUCTION TO MICROBIOLOGY • PROBABILITY AND STATISTICS FOR ENGINEERS • INTRODUCTION TO ENVIRONMENTAL ENGINEERING 	<ul style="list-style-type: none"> • MATERIAL SCIENCE • ENVIRONMENTAL ENGINEERING SYSTEMS • NUMERICAL METHODS • ENGINEERING AND DESIGN II • SCIENCE AND TECHNOLOGY IN A GLOBAL CONTEXT • 1 RESTRICTED ELECTIVE 	WORK TERM ONE
THREE	<ul style="list-style-type: none"> • AIR QUALITY • ENGINEERING ECONOMICS • THERMODYNAMICS • WATER QUALITY • HYDROLOGY • SOIL MECHANICS 	WORK TERM TWO	WORK TERM THREE
FOUR	<ul style="list-style-type: none"> • SOLID AND HAZARDOUS WASTE MANAGEMENT • URBAN WATER SYSTEMS DESIGN • 3 RESTRICTED ELECTIVES 	<ul style="list-style-type: none"> • GROUNDWATER ENGINEERING • ENGINEERING AND DESIGN III • PROCESS CONTROL • HEAT AND MASS TRANSFER • MASS TRANSFER OPERATIONS • 1 RESTRICTED ELECTIVE 	WORK TERM FOUR
FIVE	WORK TERM FIVE	<ul style="list-style-type: none"> • ENVIRONMENTAL ENGINEERING DESIGN IV • 4 RESTRICTED ELECTIVES 	

BASED ON THE 2022/23 UNDERGRADUATE CALENDAR

PLEASE SEE THE CURRENT UNDERGRADUATE CALENDAR FOR MORE INFORMATION