



Adding Value to Your Team

The University of Guelph's innovative Mechanical Engineering program is designed around a framework of sustainability. The courses prepare students to design and develop processes and systems that improve our environment, technology and quality of life. The program emphasizes the principles of physics and materials science, design, manufacturing, and maintenance of mechanical systems. Students learn about the production and usage of heat and mechanical power for the design, production, and operation of machines and tools. By emphasizing collaboration and integration, students acquire practical design-based skills that allow them to apply effective solutions in the workplace.

Students can obtain a degree of specialization in one of the areas below:

- Wind and solar energy
- Mechatronics
- Food and beverage engineering
- Manufacturing system design
- Biomechanics

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

- Participation in interdisciplinary design groups focused on developing effective problem solving, communication and teamwork skills
- Application of computer aided design using SolidWorks and AutoCAD by their first work term
- Hands-on experience in our well-equipped machine shop, with a focus on safety training
- Solid knowledge of machine design, digital electrical and electromechanical systems and systems analysis

recruit@uoguelph.ca
519-824-4120 ext. 52323
uoguelph.ca/coop

Mechanical Engineering Course Sequencing

YEAR	FALL (SEPT-DEC)	WINTER (JAN-APRIL)	SUMMER (MAY-AUG)
ONE	<ul style="list-style-type: none"> • GENERAL CHEMISTRY I • INTRODUCTION TO PROGRAMMING • ENGINEERING AND DESIGN I • CALCULUS I • PHYSICS WITH APPLICATIONS 	<ul style="list-style-type: none"> • ENGINEERING MECHANICS I • ENGINEERING ANALYSIS • CALCULUS II • INTRODUCTORY ELECTRICITY AND MAGNETISM • 1 RESTRICTED ELECTIVE 	OFF
TWO	<ul style="list-style-type: none"> • ENGINEERING AND DESIGN II • MATERIAL SCIENCE • ENGINEERING SYSTEMS ANALYSIS • ENGINEERING MECHANICS II • APPLIED DIFFERENTIAL EQUATIONS • OCCUPATIONAL HEALTH & SAFETY • INTRODUCTION TO CO-OPERATIVE EDUCATION 	<ul style="list-style-type: none"> • KINEMATICS AND DYNAMICS • FLUID MECHANICS • ELECTRIC CIRCUITS • NUMERICAL METHODS • PROBABILITY AND STATISTICS FOR ENGINEERS • INTRODUCTION TO MANUFACTURING PROCESSES 	WORK TERM ONE
THREE	<ul style="list-style-type: none"> • THERMODYNAMICS • ELECTROMECHANICAL DEVICES • MACHINE DESIGN • ENGINEERING ECONOMICS • SCIENCE AND TECHNOLOGY IN A GLOBAL CONTEXT • 1 RESTRICTED ELECTIVE 	WORK TERM TWO	WORK TERM THREE
FOUR	<ul style="list-style-type: none"> • MECHANICAL VIBRATION • 5 RESTRICTED ELECTIVES 	<ul style="list-style-type: none"> • ENGINEERING AND DESIGN III • SYSTEMS AND CONTROL THEORY • HEAT AND MASS TRANSFER • APPLIED FLUIDS AND THERMODYNAMICS • 2 RESTRICTED ELECTIVES 	WORK TERM FOUR
FIVE	WORK TERM FIVE	<ul style="list-style-type: none"> • MECHANICAL ENGINEERING DESIGN IV • 3 RESTRICTED ELECTIVES 	

BASED ON THE 2022/23 UNDERGRADUATE CALENDAR

PLEASE SEE THE CURRENT UNDERGRADUATE CALENDAR FOR MORE INFORMATION