



# Master of Engineering (M.Eng.) Program in Mechanical Engineering

2024-2025

The Department of Mechanical & Materials Engineering (MME) at the University of Western Ontario offers a **Master of Engineering (M.Eng.) program in Mechanical Engineering**. This program is specially structured to assist qualified engineers in the advancement of their professional careers and to provide students with the skills necessary to address key technological challenges associated with the practice of Mechanical Engineering.

If enrolled full-time, a student can complete the degree in one year.

For admission consideration to the M.Eng program, students must have a Bachelor's degree in Mechanical Engineering, or an equivalent degree from an accredited University with a minimum of 70% (B) grade average (North American), computed based on the last two years of a bachelor's honours degree marks, or on their previous graduate marks. In some cases, students with a similar degree from another scientific discipline may be admitted, with the approval of the MME Associate Chair Graduate. Please note that this is a very competitive program, meeting the minimum requirements for admission does not guarantee acceptance into the program.

The program is comprised of either 10 half courses, or 8 half courses plus an MEng Project as follows:

## A) Minimum 2 of the 4 core half courses in Mechanical and Materials Engineering.

MME 9601	Design and Manufacturing	MME 9603	Solid Mechanics
MME 9602	Engineering Materials	MME 9604	Fluid Mechanics

## B) 2 of the core half courses in Professional Engineering.

ELI 9001	Engineering Business	ELI 9300	Design Driven Innovation
ELI 9100	Intellectual Property	ELI 9310	New Venture Creation
ELI 9105	Strategic Innovation & Commercialization	ELI 9400	Engineering Leadership
ELI 9110	Risk Assessment & Management	ELI 9600	Engineering Communications
ELI 9200	Planning & Project Management	ELI 9700	Transformational Leadership

## C) 6 elective half courses, or 4 elective half courses with the MEng Project.

MME 9511	Biomechanics of the Musculoskeletal System	MME 9620	Nanomaterials and Nanotechnology
MME 9514	Corrosion and Wear	MME 9621	Computational Methods in Engineering
MME 9515	Fluid Machinery	MME 9622	Advanced Dynamics and Kinematics
MME 9516	HVAC I	MME 9624	Actuator Principles, Integration and Control
MME 9517	HVAC II	MME 9639	Viscous and Boundary Layer Flow Medical Device Design
MME 9521	Systems and Control	MME 9640	Thermal Systems Engineering
MME 9527	Advanced CAE: Reverse Engineering	MME 9641	Selected Topics: Composite Processing
MME 9605	Production Management for Engineers	MME 9643	Experimentation and Data Analysis
MME 9606	Robotics & Automation	MME 9648	Selected Topics: Machine Learning for Engineering Applications
MME 9611	Continuum Mechanics	MME 9650	Additive Manufacturing
MME 9612	Finite Element Methods	MME 9651	Mechatronic Systems Engineering
MME 9613	Advanced Finite Element Modelling	MME 9654	Impact Biomechanics
MME 9614	Applied Computational Fluid Mechanics and Heat Transfer	MME 9655	Dynamical Systems Modeling & Analysis
MME 9615	Biomechanics of Human Joint Motion	MME 9656	Micromechanics of Plasticity in Crystalline Solids
MME 9617	Energy Conversion	MME 9658	

Interested student may also be able to enroll in some 97xx-level courses offered by the MME Department with the approval of the course instructor and the MME Associate Chair Graduate. Please note that MEng students are allowed to take a maximum of 3 MME 95xx-level courses.

For more information, please visit our website: [http://www.eng.uwo.ca/mechanical/graduate/professional\\_program/index.html](http://www.eng.uwo.ca/mechanical/graduate/professional_program/index.html) or contact by phone (519-661-4122) or by e-mail ([mmeprofessionalgrad@uwo.ca](mailto:mmeprofessionalgrad@uwo.ca)).

Fall Course Offering    Winter Course Offering    Summer Course Offering

REVISED: Aug 26, 2024