

# Practical Elements in Mechanical Engineering

Department of Mechanical and Materials Engineering



## What is Practical Elements in Mechanical Engineering?

Practical Elements in Mechanical Engineering (PEME) is a certificate developed by the Department of Mechanical and Materials Engineering at Western University in collaboration with Fanshawe College of Applied Arts and Technology.

Unique in Canada, PEME is a formal avenue for students to enrich their knowledge of the mechanical engineering profession by taking courses in machining, welding, metrology, and other practical hands-on skills.

The certificate is completed at Fanshawe College, offering Western Engineering students the option to complement their university learning with the practical skills used in the profession.

## Who can take Practical Elements in Mechanical Engineering?

Students enrolled in Western's Mechanical Engineering undergraduate program, who are on track with their studies, may apply to PEME following their second or third year of study.

Since PEME is offered every year, students can combine the program with a Dual Degree, Internship or Summer Engineering Co-op, Accelerated Master's Program, and more; there are no limitations.

## How will Practical Elements in Mechanical Engineering help me as an engineer?

Upon graduation, you will have a bachelor of engineering science degree from Western and a Practical Elements in Mechanical Engineering certificate from Fanshawe College. Not only will these credentials look good on your resume, you will also have a practical insight into how things are made and this will enable you to have a more immediate impact in design and manufacturing. As a graduate of the program, you will also be well equipped to start an engineering or manufacturing company of your own.

# Mechanical Engineering

Shape your future with Western Engineering Plus

## Combined Degrees

### *Mechanical Engineering and Management*

After two years in Engineering, students apply to the Richard Ivey School of Business. If admitted to Ivey, students take a combination of HBA courses and Mechanical Engineering courses for the next three years. At the end of five years, students graduate with both BEng and HBA degrees.

### *Mechanical Engineering and Medicine*

Students apply for this option in second year. The course load in second and third year of Engineering studies is slightly heavier with this option to complete all required Engineering courses. Students apply to the Schulich School of Medicine & Dentistry for admission to the Medicine program in their third year. MCAT's must be written before this time. Three spots in Western's first year Medicine program are reserved for Engineering students. If a student is admitted to Medicine after three years in Engineering, she/he will complete the Medicine program for the next four years in addition to the Fourth Year Design project. At the end of seven years, students graduate with both BEng and MD degrees.

### *Mechanical Engineering and Law*

After three years in Mechanical Engineering, students apply to Western Law. Students are required to write the LSAT examinations prior to this time. For the next three years, students take a combination of Law courses and Mechanical Engineering courses. At the end of six years, students graduate with both BEng and LLB degrees.

## Concurrent Degrees

Many students in Chemical Engineering enhance their education by completing concurrent degrees. Normally, a student would choose to do a concurrent degree with a major module in the Faculty of Science, Social Science or Arts and Humanities such as Environmental Science, Computer Science, Psychology, or English. Combining both programs allows students to graduate with two degrees in less time than it would take to complete each degree independently.

## Co-op Programs

Our Internship and Summer Engineering Co-op programs provide students with opportunities to gain practical experience. The 12-to 16-month internship is available to students following their third year of study. Summer co-ops provide technical work experience during the summer months and are available to qualifying students at each level of undergraduate studies. Engineering students with practical experience are usually the first to secure employment following graduation.

## Accelerated Master's Program

This program is offered to current third-year Western Engineering students. Applicants must have an average grade of 80 per cent or higher (based on their second and third year courses). The Accelerated Master's Program allows students to receive an MEng within one year of receiving their BEng.

### **Practical Elements in Mechanical Engineering**

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