

# MECHANICAL AND MATERIALS ENGINEERING

### **Departmental Facilities**

The facilities are subject to frequent review to meet the requirements of the department's commitment to teaching and research. A range of computing facilities is available for laboratory and course work use. A large shop contains advanced machining and welding equipment for instruction and apparatus construction.

#### **Financial Assistance**

The Department attempts to ensure that students have sufficient financial support from scholarships, teaching assistantships, research fellowships and research assistantships to cover fees and minimum living expenses.

Holders of major scholarships or fellowships are usually encouraged by the donor and by the Department to obtain teaching experience, and thus augment their income with teaching assistantships.

#### Fields of Research

The Department of Mechanical and Materials Engineering has concentrated its research in four fields which are recognized by the Engineering Profession as components of Mechanical Engineering: Biomechanical Engineering, Energy and Fluid Systems, Manufacturing and Dynamic Systems, and Materials Engineering.

## **Materials Science and Technology**

The Department cooperates with the Departments of Chemical Engineering, Chemistry, Electrical and Computer Engineering, and Physics, Engineering Physics and Astronomy, in offering courses and research projects to students wishing to concentrate in materials science and technology. Students are registered for M.A.Sc. and Ph.D. degrees in one of the five departments and are encouraged to take relevant courses from the others.

#### ADMI Master of Engineering (ADMI M.Eng.) Temporarily suspended for 2021/22 academic year.

The ADMI Master of Engineering program (ADMI M.Eng.) is offered through a partnership between Queen's University and Western University, and is designed for working engineering graduates. It is a coursework M.Eng. degree. Each course in the program is composed of two weekend modules and each course is approximately 36 hours of in-class time spent on lectures, discussion and application work. The ADMI M.Eng. program requires participants to dedicate a total of

four full days of focused in-class participation in each course, as well as complete take-home assignments.

For details visit the ADMI website at www.admicanada.ca (http://www.admicanada.ca/).

#### **UNENE Program (University Network of Excellence in Nuclear Engineering)**

The UNENE program is a graduate studies program approved by the Ontario Council of Graduate Studies. It is a joint course-based Master's of Engineering program in Nuclear Engineering offered by McMaster, Waterloo, Western and Queen's universities. Students can register for a variety of courses in areas fundamental to nuclear power plant design, operation and safety and the technologies of industries which use nuclear techniques. The program provides an overview of the fundamentals in many nuclear topic areas. To register for UNENE courses a student must be registered as a graduate student at one of the participating UNENE universities. The UNENE program is presented by these universities and other Ontario and Canadian universities that participate by providing courses and instructors. A graduate student registered in a UNENE university is eligible to take all the courses in the UNENE program and be credited for them at the university where the student is registered. The requirement for a Master's of Engineering degree is ten UNENE courses or eight courses and an industrial project.