Memorial University, the largest university in Atlantic Canada, is recognized as one of the best and most comprehensive universities in the country. Memorial offers more than 100 degree programs to a student population of more than 17,500. Memorial’s Faculty of Engineering and Applied Science has many well-respected academic and research programs in engineering. The faculty also offers high-quality, course-based master’s degree programs in computer engineering, environmental systems engineering and management, oil and gas engineering and engineering management.

Program Features
- These programs normally take 14 to 18 months to complete.
- To apply concepts learned in classroom and laboratory environments, students work in teams on an engineering project for two terms.
- High academic standing students have the option to do an internship.
- Selected highly-qualified students receive an entrance scholarship.
- In-program scholarships are awarded to the top two eligible students after the first two semesters.

Admission Requirements
- Second-class bachelor’s degree in engineering or a relevant area from a recognized university.
- TOEFL iBT score of 80 and above for computer engineering, environmental systems engineering and management, and oil and gas engineering; TOEFL iBT score of 92 and above for master of engineering management; a minimum overall score of 6.5 on IELTS for all programs; or other demonstrations of English proficiency as described in the Memorial University Calendar (www.mun.ca/regoff/calendar/).
- Successful interview with a Memorial University representative.

Enrolment is limited and competitive. Preference is given to candidates who exceed the minimum requirements listed above.
Master of Engineering Management

The Faculty of Engineering and Applied Science, in collaboration with the Faculty of Business Administration, offers a program in engineering management leading to the degree of master of engineering management (MEM).

The MEM program at Memorial University is centred on equipping engineers with relevant, cutting-edge knowledge and experience in engineering and business. This course-based program combines education in management with technical training in the student’s field of interest.

www.engr.mun.ca/MEM

Environmental Systems Engineering and Management

Environmental engineering has become an increasingly important discipline due to the complexity and multi-disciplinary nature of environmental issues dealing with human health and ecosystem protection. It is important to acquire broad-based education and professional training in inter-disciplinary fields of physical, chemical and biological principles; resource management; and mitigation measures besides in-depth knowledge in environmental engineering, to find cost-effective engineering solutions to these complex issues. This program covers a wide range of related topics, such as environmental law and management; human health and ecological risk assessment; remediation technology; treatment processes of drinking water and wastewater; contaminant transport and environmental modelling; environmental sampling; and pollution-control engineering.

www.engr.mun.ca/MESEM

Computer Engineering

The program prepares graduates for further postgraduate study or for careers as computer engineers in sectors such as telecommunications, information technology, software development and digital hardware design. The degree provides participants with a balanced background in computer hardware and software and an in-depth knowledge of important applications areas, such as software development, hardware design, telecommunication systems, computer networks and parallel computing.

www.engr.mun.ca/MASCE

Oil and Gas Engineering

The oil and gas industry is complex and requires expertise in various areas and technical disciplines. The program provides the latest technical knowledge on upstream and downstream aspects of oil and gas engineering. The program also addresses serious issues faced by oil and gas industries, such as sustainable development; environmental protection; risk, reliability and safety. The program courses cover drilling engineering, advanced reservoir engineering, well testing, phase behaviour of petroleum fluid, petroleum production, compact process equipment design, offshore environmental operations and natural gas engineering. Many of the courses taught in the program are supported by field study and laboratory demonstrations.

www.engr.mun.ca/MOGE

Master of Applied Science (MASc.) Degrees:

Industrial Internship Option

Memorial University’s Faculty of Engineering and Applied Science encourages graduate students to undertake internships in industry. These internships will allow students to enhance the application of their knowledge and skills by working within industry or by completing a research project defined by industry.
Liang Zhang graduated from Tianjin University, China. He graduated from the master of applied science in computer engineering program in 2006. He then immigrated to Canada and worked as a hardware design engineer at Altera Newfoundland Technology Centre (Altera NTC) in St. John’s, NL, Canada, for about five years. He is currently working as a validation engineer at Applied Micro Circuits Corp. (AMCC).

“I found that the Memorial engineering instructors and student advisers in this program were friendly and eager to help. They gave me a lot of assistance while I was in the MASCE program.”

Liang Zhang, MASCE

Peijian Hu has a bachelor degree in mechanical engineering from Jimei University, China. She received her master of applied science in environmental systems engineering and management from Memorial University in May, 2010. She is currently working as a TPS engineer with Phase Separation Solutions Inc.

Pushpinder Rana is from India and has a bachelor degree from Punjab Technical University. He received his master of applied science degree in oil and gas engineering in October of 2011. He is currently pursuing a master of engineering degree and has been awarded an academic scholarship valued at $15,000 Canadian per year.

Pushpinder Rana, MOGE

Siddharth Gupta received his bachelor of mechanical engineering from India. He joined the master of engineering management program in September of 2010. He was offered an eight-month internship as a mechanical reliability engineering student with Imperial Oil/ExxonMobil Companies of Canada based in Edmonton, Alberta. He received his master of engineering management degree in October of 2012. Mr. Gupta is currently working as a reliability engineer with Suncor Energy.

Siddharth Gupta, MEM

Tuition*

<table>
<thead>
<tr>
<th>Program(s)</th>
<th>Computer Engineering</th>
<th>Environmental Systems Engineering and Management, Oil and Gas Engineering, and Engineering Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>$26,000 CAD</td>
<td>$22,000 CAD</td>
</tr>
<tr>
<td>Canadian</td>
<td>$20,000 CAD</td>
<td>$16,000 CAD</td>
</tr>
</tbody>
</table>

*Tuition covers all instructional costs but does not include books, living expenses and health insurance. Tuition fee is subject to change.
Jingke She is a graduate of Tsinghua University in China. After graduating from Memorial University with a M.A.Sc. degree in computer engineering, he went to the University of Western Ontario and received his PhD. Mr. She is currently working at a CANDU nuclear power plant.

“This program provides a good opportunity for students who want to focus on computer engineering. The courses are well organized to offer specific knowledge, from theories to project capabilities. It is taught at one of the best universities in Canada in a beautiful and peaceful city.”

Jingke She, MASCE

Shan Huang is a graduate of Fuzhou University, China with a major in chemical engineering. He received his M.A.Sc. degree in environmental systems engineering and management in 2009. He now works with Shanghai Chuanji Investment Management Ltd. Co., as a clean development mechanism project manager.

“I was very fortunate to be a member of the MESEM program at Memorial University. Knowledgeable professors and a favourable environment enabled me to make great progress in my program and my career.”

Shan Huang, MESEM

Marat Gabdeyev is a graduate of Kazakh-British Technical University, Almaty, Kazakhstan. He graduated from Memorial University in May 2010 with a M.A.Sc. degree in oil and gas engineering. Mr. Gabdeyev is currently working as a field crew manager with CGG Veritas International.

“Being a graduate student at Memorial was a great experience. The quality of students is very impressive. The university has strong links all around Canada. With a mixture of lectures, tutorials and labs, the teaching is excellent. The lecturers are really approachable if you need help with anything and lab helpers are in the labs to help with course work. Overall, I would recommend Memorial’s M.A. Sc. oil and gas engineering program as it helped me a lot to achieve my life and career goals.”

Marat Gabdeyev, MOGE

Paul Ryan graduated with a B.Eng in 1990 from the Royal Military College of Canada in Kingston, Ont. He received a master of engineering management degree in 2011. He is currently an instructor and co-ordinator of programs in the School of Ocean Technology at the Fisheries and Marine Institute of Memorial University.

“The MEM program was exactly what I was looking for. It allowed me to expand my interest in engineering and it broadened my business and management skills.”

Paul Ryan, MEM