

## ABOUT THE DEPARTMENT

**The bridge between Medicine and Engineering** – In Biomedical Engineering, researchers actively develop and apply engineering advances directly to patients in collaboration with medical practitioners.

**Home to a dedicated, state-of-the-art Magnetic Resonance Imaging (MRI) facility** – Unique within Canada, the Peter S. Allen MR Research Centre has three MRI systems for human imaging (field strengths: two 3 T and 4.7 T), all located inside the University Hospital. The facility was expanded in 2015 through a \$17.5M grant anchored by the Canada Foundation for Innovation.

**Professors directly affect patient care and industry practice** – The work being done in the Department is making a difference in people's lives through engineering advances in nanostructured biomaterials and MRI for neurological, psychiatric and cardiovascular diseases.

**Focused on mentorship** – Eight core professors and 40 adjunct professors from across campus are available to supervise graduate students.

## RESEARCH STRENGTHS

Nanostructured  
Biomaterials

Spinal Cord Injury  
and Rehabilitation

Magnetic Resonance  
Imaging (MRI)

Magnetic Resonance  
Spectroscopy

## PROGRAMS

Master of Science (MSc)

Doctor of Philosophy (PhD)

**MD-PhD Program**  
(Joint with the Faculty of  
Medicine and Dentistry)

## FUNDING

Each graduate student receives financial support through research assistantships provided by the supervisor's research grants. Graduate students are also encouraged to apply for external scholarships and awards.

## DEPARTMENTAL APPLICATION DEADLINES

### Canadian applicants:

July 1 for September (Fall) Admission

November 1 for January (Winter) Admission

**International applicants** (including applicants within Canada applying for a study permit):

April 30 for September (Fall) Admission

July 30 for January (Winter) Admission

## CONTACT US

### Department of Biomedical Engineering

Department of Biomedical Engineering  
13-203 Donadeo Innovation Centre for  
Engineering,  
9211-116 Street NW,  
Edmonton Alberta  
Canada T6G 1H9

Phone: 780-492-2541

Email: [bmegrad@ualberta.ca](mailto:bmegrad@ualberta.ca)

Department of  
**Biomedical**  
ENGINEERING



[www.biomed.engineering.ualberta.ca/en/Graduate.aspx](http://www.biomed.engineering.ualberta.ca/en/Graduate.aspx)

## ABOUT THE DEPARTMENT

**Home to three major research centres** – The Canadian Centre for Clean Coal/Carbon and Mineral Processing Technologies (C5MPT), the Canadian Centre for Welding and Joining (CCWJ) and the Institute for Oil Sands Innovation (IOSI).

**Research prowess** – More than 50 faculty members hold in excess of 25 prestigious provincial, national and international research awards and chair positions, including six NSERC Industrial Research Chairs, four Canada Research Chairs, and a Canada Excellence Research Chair.

**Partnerships with local companies** – Research partnerships mean graduate students can spend extended periods at industrial sites. Industrial participation in graduate training allows graduates to transition seamlessly into industry or entrepreneurial endeavours.

**Collaboration with the National Institute of Nanotechnology (NINT)** – Researchers work closely with the National Institute of Nanotechnology (NINT), a joint venture with the National Research Council Canada (NRC) that hosts world-leading nanotechnology facilities and research programs.

**Focused on teaching and learning** – Faculty members prioritize mentoring and teaching: CME faculty members hold numerous teaching awards including the Engineers Canada Medal for Distinction in Engineering Education and the APEGGA Excellence in Education Award.

**Home to the Engineering Safety and Risk Management Program** – The first of its kind in Canada.

## RESEARCH STRENGTHS

Biochemical Engineering

Biomedical and  
Regenerative Medicine

Corrosion and Wear

Fluid Dynamics

Materials  
Characterization and  
Processing

Mathematical and  
Molecular Modeling

Nanomaterials and  
Nanofabrication

Oil Sands Energy

Process Control and  
Systems Engineering

Reactions and Catalysis

Surface Science and  
Interfacial Engineering

Thermodynamics

Welding and Metallurgy

## PROGRAMS

Master of Science (MSc)

Doctor of Philosophy (PhD)

Master of Engineering (MEng)\*

\*Course-based program

Specializations in Chemical Engineering, Materials Engineering, Computer Process Control and Welding

## FUNDING

The department provides financial support for full-time PhD and MSc students through teaching assistantships, research assistantships and scholarships. Graduate students are also encouraged to apply for external funding through scholarships and awards.

## DEPARTMENTAL GRADUATE APPLICATION DEADLINES

### Canadian/Permanent Resident applicants:

August 15 for September (Fall) Admission

December 1 for January (Winter) Admission

### International applicants:

April 1 for September (Fall) Admission

October 1 for January (Winter) Admission

## CONTACT US

### Chemical and Materials Engineering

12-203 Donadeo Innovation Centre for Engineering,  
9211-116 Street NW,  
Edmonton Alberta  
Canada T6G 1H9

Phone: 780.492.3321

Email: [chemmat@ualberta.ca](mailto:chemmat@ualberta.ca)

Department of

# Chemical & Materials ENGINEERING



[www.cme.engineering.ualberta.ca/Graduate.aspx](http://www.cme.engineering.ualberta.ca/Graduate.aspx)

## ABOUT THE DEPARTMENT

**The largest Civil Engineering graduate program in Canada** – Our program boasts more than 500 graduate students from over 40 countries.

### **Industrial partnerships that support student learning**

– We have built strong relationships with local, national and international organizations, including PCL Construction, Syncrude Canada, Suncor, Shell, CN, CP, CNRL, Teck and BP.

**Program breadth** – We offer graduate studies in eight areas of specialization: Construction Engineering and Management, Environmental, Geotechnical, Petroleum, Mining, Structures, Transportation and Water Resources Engineering.

### **Home to internationally recognized research leaders**

– Our faculty includes seven NSERC Industrial Research Chairs, the Canada Research Chair in Natural Resources Uncertainty Management, and Endowed Chairs in nanofibre research, steel structures, and masonry systems.

**Home to the new Canadian Rail Research Laboratory (CaRRL)** – CaRRL works to address key challenges in the Canadian rail sector, including: safety and security, long travel distances, sparse population, and extreme climates.

## RESEARCH STRENGTHS

Advanced and Smart Materials

Construction Engineering Simulation

Cold Region and River Ice Engineering

Emerging Technology in Nanocellulose Fibres

Enhanced Oil/ Heavy-Oil Recovery

Oil Sands Tailings Management

Petroleum Geomechanics

Road Infrastructure and Underground Trenchless Technology

Slope Stability and the Cyclic Loading Of Embankments

Safety and Intelligent Transportation Systems

Water and Wastewater Treatment

Structural Health Monitoring and Modeling

Human Biomechanics

Oil sand and oil reservoir simulation research

Geostatistics in Mining Engineering

Building Engineering (Join program with MEC)

## PROGRAMS (all areas of specialization)

Master of Science (MSc)

Doctor of Philosophy (PhD)

## FUNDING

Financial assistance is available for students enrolled in thesis-based degrees. Students are encouraged to apply for scholarships, which will reduce workload resulting from teaching or supplemental research duties. Assistantships are available to both Canadian and foreign students.

## DEPARTMENTAL APPLICATION DEADLINES

### **Canadian/Permanent Resident applicants:**

July 1 for September (Fall) Admission

October 30 for January (Winter) Admission

### **International applicants**

**(this includes applicants within Canada  
applying for a study permit):**

April 30 for September (Fall) Admission

July 31 for January (Winter) Admission

## CONTACT US

**Department of Civil and  
Environmental Engineering  
School of Mining and  
Petroleum Engineering**

7-207 Donadeo Innovation Centre for  
Engineering  
9211 – 116 Street  
Edmonton, Alberta, Canada T6G 1H9

Phone: (780) 492-4235

Email: [cgradvis@ualberta.ca](mailto:cgradvis@ualberta.ca)

Department of

# Civil & Environmental Engineering

School of

# Mining & Petroleum Engineering



[www.civil.engineering.ualberta.ca/Graduate.aspx](http://www.civil.engineering.ualberta.ca/Graduate.aspx)

## ABOUT THE DEPARTMENT

**State-of-the-art facilities** – We have top-notch facilities in all areas of Electrical and Computer Engineering, including the nanoFAB, a 600 m<sup>2</sup> nano- and micro-fabrication facility with capabilities unique in Canada.

**Internationally recognized faculty members** – The Department maintains active international collaborations, including close ties to the National Institute of Nanotechnology (NINT) located on the University of Alberta campus. These collaborative relationships give students access to many top national and international research facilities.

**Strong research output** – Our faculty members and their students have published the largest number of peer-reviewed publications of any Electrical and Computer Engineering department in Canada (2006 to 2012). Many of those publications are in prestigious journals such as IEEE Transactions, Physical Review Letters, Nature and Science.

**Partnerships with industry** – Our relationships with industry partners give graduate students the opportunity to work in real-world scenarios and build their networks. Motivated students have been supported in starting successful spin-off companies.

**Outstanding graduate students** – Many of our graduate students have earned prestigious academic, research and leadership awards, such as Vanier Canada Graduate Scholarships, Izaak Walton Killam Memorial Scholarships and Andrew Stewart Memorial Graduate Prizes.

## RESEARCH STRENGTHS

Biomedical Engineering

Communications

Computer Engineering

Control Systems

Electromagnetics and  
Microwaves

Energy Systems

Integrated Circuits and  
Systems

Microsystems and  
Nanodevices

Photonics and Plasmas

Signal and Image  
Processing

Software Engineering  
and Intelligent Systems

Solid State Electronics

## PROGRAMS

Master of Science (**MSc**)

Doctor of Philosophy (**PhD**)

Master of Engineering  
(**MEng**)\*

Master of Science in  
Internetworking (**MINT**)\*(Joint  
with the Department of  
Computer Science)

**MBA/MEng** (Joint with School  
of Business)\*

\*Course-based programs

## FUNDING

The Department provides financial support to graduate students through research and teaching assistantships and scholarships. All applicants are automatically considered for these awards during the review of their application. Graduate students are also encouraged to apply for external scholarships and awards.

## DEPARTMENTAL APPLICATION DEADLINES

### **Canadian applicants:**

July 1 for September (Fall) Admission\*

November 1 for January (Winter) Admission\*

\*However, applications will be accepted until positions are filled.

### **International applicants (including applicants within Canada applying for a study permit):**

April 30 for September (Fall) Admission

July 30 for January (Winter) Admission

## CONTACT US

### **Department of Electrical & Computer Engineering**

11-203 Donadeo Innovation Centre for  
Engineering  
9211 – 116 Street NW  
University of Alberta  
Edmonton, Alberta, Canada T6G 1H9

Phone: 780.492.3332

Email: [McDonagh@ualberta.ca](mailto:McDonagh@ualberta.ca)

(Nona McDonagh, Graduate Admissions  
Advisor) or

[ivan.fair@ualberta.ca](mailto:ivan.fair@ualberta.ca)

(Dr. I. Fair, Associate Chair Graduate  
Studies)

Department of

# Electrical & Computer ENGINEERING



[www.ece.engineering.ualberta.ca/Graduate.aspx](http://www.ece.engineering.ualberta.ca/Graduate.aspx)



## ABOUT THE DEPARTMENT

### **A top Canadian School for Mechanical Engineering education**

– The Department of Mechanical Engineering at the University of Alberta is among the most productive, recognized, well-funded and reputable Mechanical Engineering Departments in Canada.

**An internationally recognized faculty** – Department faculty include two Endowed Research Chairs, a Canada Research Chair, three NSERC Industrial Research Chairs, two CSME Fellows, an ASME Fellow, two Engineering Institute of Canada Fellows, and an American Association for Aerosol Research Fellow.

### **A focus on graduate student mentorship and education**

– Our goal is to prepare students to meet the demands of academia and industry in a well-supported, collegial and interdisciplinary environment.

### **At the forefront of innovation, research and scholarship**

– Our academics have established industrial and international collaborations that focus on real-world issues and improve graduate student training in areas crucial to the Canadian and world economies.

**World-class facilities and equipment** – Our state-of-the-art testing, computational and production infrastructures serve our research community and beyond.

**Located at the gateway to the north** – Edmonton is the gateway to the tremendous opportunities in oil and gas, and home to one of the fastest growing, most vibrant economies in the world.

## RESEARCH STRENGTHS

Biomechanics and  
Biomedical Engineering

Energy and Environment

Engineering  
Management

Nano and Micro  
Technologies

Thermo-Fluids

Solid Mechanics

## PROGRAMS

Master of Science (**MSc**)

Master of Science (**MSc**) in  
Engineering Management

Doctor of Philosophy (**PhD**)

Doctor of Philosophy (**PhD**) in  
Engineering Management

## FUNDING

Applicants seeking financial support must negotiate funding with their supervisor before being granted acceptance. Financial support is provided through research and teaching assistantships. Graduate students are also encouraged to apply for external scholarships and awards.

## DEPARTMENTAL APPLICATION DEADLINES

### **Canadian applicants:**

June 30 for September (Fall) Admission

October 30 for January (Winter) Admission

### **Applicants from Nigeria, Iran and the People's Republic of China:**

March 15 for September (Fall) Admission

July 15 for January (Winter) Admission

### **Other International applicants:**

May 15 September (Fall) Admission

September 15 for January (Winter) Admission

## CONTACT US

**Department of Mechanical Engineering**  
10-203 Donadeo Innovation Centre for  
Engineering  
9211 – 116 Street  
Edmonton, Alberta, Canada T6G 1H9

Phone: 780.492.1640  
mece.grad@ualberta.ca

Department of

**Mechanical**  
ENGINEERING



[www.mece.engineering.ualberta.ca/Graduate.aspx](http://www.mece.engineering.ualberta.ca/Graduate.aspx)