

Chemical Engineering

MASc / MEng / PhD

ryerson.ca/graduate



Chemical Engineering

Explore diverse research fields such as process systems, water and wastewater treatment, and functional materials in this dynamic program. Students benefit from full-scale equipment, the latest computer software and cutting-edge technology in diverse research projects such as process modelling, simulation and control, tissue engineering, microfluidic devices, renewable energy, energy storage materials, and water and wastewater treatment, among others. With the support of expert faculty and direct connections with industry and hospitals, our in-demand graduates are prepared to solve some of society's most pressing challenges.

Research Areas

- Advanced Oxidation Technologies
- Biomedical and Tissue Engineering
- Biotechnology
- Computational Fluid Dynamics (CFD)
- Crystal Engineering of Microporous Materials
- Enhanced Oil Recovery (EOR)
- Liquid Crystalline Materials and Phase Separation in Polymer Systems
- Mass Transfer in Polymer-Solvent Systems
- Membrane Technology
- Microfluidics and Lab-on-a-Chip
- Mixing of Complex Fluids
- Nanotechnology
- Packed-Bed Fluid Dynamics and Mass Transfer
- Polymer Reaction Engineering
- Regenerative Medicine
- Renewable and Green Energy
- Rheology, Multiphase Flow and Flow Visualization
- Simulation, Optimization, Process Control and Optimal Control
- Statistical Modelling and Analysis
- Surface Modification of Polymers
- Treatment of Water and Wastewater

Admissions Information

MASc	<ul style="list-style-type: none">• Completion of a 4-year bachelor's degree in chemical engineering or a related engineering or applied science discipline• Minimum GPA or equivalent of 3.33/4.33 (B+) in the last two years of study
MEng	<ul style="list-style-type: none">• Completion of a 4-year bachelor's degree in chemical engineering or a related engineering or applied science discipline• Minimum GPA or equivalent of 3.00/4.33 (B) in the last two years of study
PhD	<ul style="list-style-type: none">• Completion of a master's degree in chemical engineering or a related engineering or applied science discipline• Minimum grade point average (GPA) or equivalent of 3.33/4.33 (B+)

Applicants may be required to provide certification of English language proficiency. For more information, visit ryerson.ca/graduate/futurestudents/admissions/english-language.html.

Resources

- Advanced Functional Materials Lab
- Cartilage Tissue Engineering Lab
- Complex Fluids and Advanced Materials Lab
- Environmental/Biochemical Engineering Lab
- Fluid Mixing Technology Lab
- Membrane Bioreactors Lab
- Membrane Technology Research Lab
- Microporous Materials Lab
- Nanocomposites and Biomaterials Engineering Lab
- Nano-engineering Energy and Environmental Lab
- Plastics and Diffusion Lab
- Polymer Reaction and Process Control Lab
- Process Engineering Computation Lab
- Transport Modelling Lab
- Wastewater Treatment Technologies Lab

At a Glance

16

state-of-the-art
research labs

21

active industry
partnerships



International Students

International Student Support (ISS) provides comprehensive resources for the international student community at Ryerson.

ryerson.ca/internationalsupport

Program Contact

chemgrad@ryerson.ca
416-979-5000, ext. 3330

Yeates School of Graduate Studies
Ryerson University
350 Victoria St.
Toronto, ON M5B 2K3
Canada

ryerson.ca/graduate