Co-op Program

CHEMICAL ENGINEERING
COURSE-BASED MASTER'S

The course-based master's in chemical engineering prepares students to carry out and implement development projects and practice as a professional engineer to address the specific needs of clients and employers.

WHAT OUR STUDENTS CAN DO FOR YOU

Project Management

- Project planning and execution
- Project monitoring and oversight
- Progress and cost tracking reports
- Site preparation and monitoring
- Administrative management: preparing purchase orders, etc.
- Sampling, inspections and testing

Research and development

- Setting up test benches
- Trials and data collection
- Interpretation of results

Design

- Feasibility studies, estimates, supplier sourcing, bid submission and follow-up
- Equipment production and installation follow-up

Operations management

- Analyzing and solving problems
- Procedure development
- Staff training
- Employee supervision

KNOWLEDGE AND SKILLS

Students complete 30 master's course credits before starting their co-op work term to finish their program.

Specialization in Chemical Engineering – 18–36 credits	
Processes	Pharmaceutical process engineering Test planning and statistical analysis Test design and multivariate analysis Optimization techniques Transport phenomena Solid-liquid reactions
Environment	Air pollution treatment Industrial wastewater treatment Waste management
Energy	Biofuels and renewable energy Applied electrochemistry Thermal plasma technology
Materials	Materials characterization techniques Polymer engineering
Engineering project management	Financial analysis in engineering Creativity and problem solving Engineering project management: processes Engineering project management: monitoring and oversight Managing a career in engineering CAPM® exam preparation course Managing product development Six Sigma and Zero Waste Engineering negotiations and dispute resolution Effective communication in engineering

ORGANIZATION OF STUDY (S) AND WORK TERM (W)

1st year			2nd year
FALL	WIN	SUM	FALL
S-1	S-2	S-3	W-1