

GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Department of Chemical and Materials Engineering

Orientation session Fall 2025

Department of Chemical and Materials Engineering – Academic and Community Conduct

Academic and community conduct

- My advice:
 - Be honest at all times
 - Plagiarism is not tolerated
 - Don't cheat on exams
 - Don't copy from others
 - Always cite every source you use
 - Be respectful at all times
 - Rudeness or bullying is not tolerated
 - Concordia encourages and celebrates diversity
 - Be responsible at all times
 - Inform yourself of the rules and follow them
 - Read your admission letter in its entirety
 - Read your course outlines in their entirety
 - Safety: Part of Chemical Engineering culture



CONCORDIA.CA





CME Thesis-based Graduate Programs

Dr. Sana Jahanshahi Anbuhi
Department of Chemical and Materials Engineering
Concordia University, Montreal, Canada



CME Thesis-Based Programs

☐ MASc

- > 45 credit program:
 - a) Courses
 - b) Department seminars by invited speakers: mandatory to attend 80%.
 - c) Thesis
 - typically, 2 years

☐ PhD

- > 90 credit program:
 - a) Courses
 - b) Comprehensive exam
 - c) Proposal exam
 - d) PhD seminar
 - e) Department seminars by invited speakers: mandatory to attend 80%.
 - f) Thesis
 - typically, 4 years

Get familiar with the <u>CME Graduate Student Handbook</u>. You will find detailed information on all programs offered by the Department and the guidelines you need to follow.



MASc Program Requirements

- https://www.concordia.ca/academics/graduate/chemical-engineering-masc.html
- ☐ a) Courses 16 credits
 - a.1) Mandatory (8 cr.):
 - > CHME 6981- Chemical Engineering Research Protocols and Safety (4 cr.)
 - required prior to lab access; take ASAP
 - ➤ Minimum 1 course (4 cr.) from: CME MASc core courses:
 - CHME 6011 Advanced Transport Phenomena (4 cr.)
 - CHME 6021 Advanced Chem. Eng. Thermodynamics (4 cr.)
 - CHME 6031 Chemical kinetics and Reaction Engineering (4 cr.)
 - CHME 6041 Chemical Process Dynamics and Control (4 cr.)
 - CHME 6051 Chemical Process Engineering and Design (4 cr.)
 - CHME 6071 Materials Science and Engineering (4 cr.)
 - CHME 6081 Advanced Separation Processes (4 cr.)
 - CHME 6121 Nanomaterials Science and Engineering (4 cr.)
 - ENCS 6021 Engineering Analysis (4 cr.)



MASc Program Requirements- Cont.

- https://www.concordia.ca/academics/graduate/chemical-engineering-masc.html
- ☐ a) Courses 16 credits
 - a.2) Other 8 credits:
 - > Any courses from CME MASc core course list and electives list

MASc electives:

(> 24; expanding)

CHME 6061 Advanced Biochemical Engineering (4 cr.)

CHME 6091 Statistics for Chem. Eng. (4 cr.)

CHME 6101 Advanced Battery Materials and Technologies (4 cr.)

CHME 6111 Polymer Chemistry and Engineering (4 cr.)

CHME 6131 Advanced Colloid and Interface Science and Engineering (4 cr.)

CHME 6911 Topics in Chemical Engineering I (4 cr.)

ENCS 6111 Numerical Methods (4 cr.)

ENGR 6201 Fluid Mechanics (4 cr.)

MECH 6131 Conduction and Radiation Heat Transfer (4 cr.)

...

- possible to take 1 course outside the Electives list (get permission of GPD); courses at other departments at Concordia or other universities.
- Note: If you take a 3-cr. course, you must take 1-cr. CHME 6001 Project in CME to obtain the missing credit.



MASc Program Requirements- Cont.

- https://www.concordia.ca/academics/graduate/chemical-engineering-masc.html
- □ b) Department seminars by invited speakers: mandatory to attend 80%.
- ☐ c) Research and thesis
 - **ENGR 8901- MASc Research and Thesis (29 cr.)**

Discuss with your supervisor on your thesis research (topic, objectives, methodology, timeline)!!!



- https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html
- □ a) Courses 12 credits
 - a.1) Mandatory (8 cr.):
 - > CHME 6981- Chemical Engineering Research Protocols and Safety (4 cr.)
 - required prior to lab access; take ASAP
 - > At least 1 course (4 cr.) from CME PhD courses:

CME PhD courses: (> 30; expanding)

CHME 6011 Advanced Transport Phenomena (4 cr.)
CHME 6021 Advanced Chem. Eng. Thermodynamics (4 cr.)
CHME 6031 Chemical kinetics and Reaction Engineering (4 cr.)
CHME 6041 Chemical Process Dynamics and Control (4 cr.)
CHME 6051 Chemical Process Engineering and Design (4 cr.)
CHME 6061 Advanced Biochemical Engineering (4 cr.)
CHME 6071 Materials Science and Engineering (4 cr.)
CHME 6081 Advanced Separation Processes (4 cr.)
CHME 6121 Nanomaterials Science and Engineering (4 cr.)

Discuss with your supervisor on course selection!!!

Choose courses that best align with your research areas and interest you most.



- https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html
- ☐ a) Courses 12 credits
 - a.2) Other 4 credits:
 - > You may take 1 course within or outside the PhD course list (get permission of GPD)
 - This can be a course at other departments at Concordia or at other universities
 - **Note:** If you take a 3-cr. course, you must take 1-cr. (e.g. CHME 6001 Project in CME) to obtain the missing credit.



- https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html
- □(b-d) Comprehensive and proposal exams, and Seminar 8 credits

 - > (c) ENCS 8511 Doctoral Research Proposal (6 cr.)

Generally, within half a year after passing Comprehensive Exam; submit a research proposal and defend

> (d) ENCS 8011 PhD Seminar (2 cr.)

Generally, after passing Doctoral Research Proposal; deliver a seminar and attend other seminars (by other PhD students and invited department seminar speakers)

Discuss with your supervisor on your comprehensive exam!!!



- https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html
- ☐ (e) Department seminars by invited speakers:
 - > mandatory to attend 80%.

- ☐ (f) Research and thesis
 - > ENGR 8911 Doctoral Research and Thesis (70 cr.)

Discuss with your supervisor to plan on your doctoral thesis!!!



Annual Progress reporting

https://www.concordia.ca/sgs/resources/handbooks/phd-supervision-guidelines/d-progress-reporting.html



- All **students** and their supervisors are responsible for filling out and submitting **Annual Progress Reports** (APRs) through the the **Student Information System** (SIS).
- **Note:** Students who fail to submit their APRs will be blocked from registering for courses the following term.



Student Resources

- ☐ Scholarship and bursary opportunities available, https://www.concordia.ca/sgs/awards-funding.html
 - Announced from time to time; will forward once announced
- ☐ International Student Office (ISO), https://www.concordia.ca/students/international.html
 - Immigration documents
 - Health Insurance
 - Events and workshops
- ☐ Student Hub, https://www.concordia.ca/students/services.html
- □ GradProSkils, https://www.concordia.ca/students/gradproskills/workshops/skill-domains.html
 - Grad academic success (Preparing a thesis or research paper, Funding and awards, etc.)
 - Leadership and management (Administration, Creativity and innovation, Leadership, Project, management)
 - Career development (Entrepreneurship, Career planning, Job search, Networking, Personal branding, Skills identification)
 - Teaching (Teaching assistantship, Teaching methods, Teaching technology)
 - Language training (French competency, English competency)
 - Communication (Academic writing, Professional writing, Presenting, etc.)
 -

CME Thesis Graduate Program Staff



- Antonios Daskalakis, Graduate Programs Coordinator cme-grad@concordia.ca
- ➤ Erica Howse, Department Administrator Erica. Howse@concordia.ca
- Harriet Laryea, Technical Supervisor harriet.laryea@concordia.ca
- Sana Jahanshahi Anbuhi, Graduate Program Director (GPD) Thesis programs sana.anbuhi@concordia.ca
- Ivan Kantor, Department associate chair ivan.kantor@concordia.ca
- ➤ Alex De Visscher, Department chair alex.devisscher@concordia.ca

Help available at CME department

Concordia

- Administrative questions
 Programs Coordinator, Antonios Daskalakis
 Department Administrator, Erica Howse
- Academic questions
 Department Chair, Alex De Visscher
 GPD, Sana Jahanshahi Anbuhi
- ➤ Lab safety questions

 Technical supervisor, Harriet Laryea

 EHS staff





Wish you best success in your study at CME!

CME Non-thesis Graduate Programs

CME Graduate Student Orientation Fall 2025

Deniz Erol, Graduate Program Director, Non-thesis Programs



General requirements:

 Certificate program consists of completing a minimum of 15 credits of course work.

Course requirements: 4 courses

- CHME 6011 Advanced Transport Phenomena (4 credits)
- ENCS 6021 Engineering Analysis (4 credits)
- One of the following courses:
 - CHME 6021 Advanced Chemical Engineering Thermodynamics (4 credits)
 - CHME 6031 Chemical Kinetics and Reaction Engineering (4 credits)
- One technical elective course (min. 3 credits, max. 4 credits):
 - You can choose courses from the following list, or any course offered in the Diploma or Master of Applied Science (MASc) programs that are not currently included in the core course list of the Certificate program.



A list of elective courses:

- CHME 6061 Advanced Biochemical Engineering (4 credits)
- CHME 6081 Advanced Separation Processes (4 credits)
- CHME 6091 Statistics for Chemical Engineering (4 credits)
- CHME 6101 Advanced Battery Materials and Technologies (4 credits)
- CHME 6111 Polymer Chemistry and Engineering (4 credits)
- CHME 6131 Advanced Colloid and Interface Science and Engineering (4 credits)
- CHME 6911 Topics in Chemical Engineering I (4 credits)
- ENCS 6111 Numerical Methods (4 credits)
- ENGR 6201 Fluid Mechanics (4 credits)
- MECH 6131 Conduction and Radiation Heat Transfer (4 credits)
- MECH 6141 Heat Exchanger Design (4 credits)
- MECH 7101 Convection Heat Transfer (4 credits)



Recommended Course Plan for Students Starting in Fall: Fall 2025:

- ENCS 6021 Engineering Analysis (4 credits)
- CHME 6021 Advanced Chemical Engineering Thermodynamics (4 credits)

Winter 2026:

- CHME 6011 Advanced Transport Phenomena (4 credits)
- Technical elective

If you are an international student and need to maintain fulltime status, you can take a 1 credit course, offered by the SGS or GCS, each semester.



If you are in need of a 1-credit course to meet the credit requirements of your program, School of Graduate Studies has started offering 1-credit, professional development courses.

- GSPD 601 Graduate Academic Fundamentals (1 credit)
- GSPD 602 Essential Leadership Skills (1 credit) Currently being offered.
- GSPD 603 Career Exploration (1 credit)
- GSPD 604 Furthering Your Professional Skills (1 credit)

Additional requirements: Attendance at 80% of the CME departmental seminar series. Attendance is taken with a sign-in sheet. The schedule of the seminars is communicated by email.



Students can transfer up to 15 credits from the Graduate Certificate to Graduate Diploma program.

If you wish to transfer, talk to your GPD and refer to the Graduate Student Handbook for the transfer process.



General requirements:

 Certificate program consists of completing a minimum of 30 credits of course work.

Course requirements: 8 courses

- CHME 6011 Advanced Transport Phenomena (4 credits)
- CHME 6021 Advanced Chemical Engineering Thermodynamics (4 credits)
- CHME 6031 Chemical Kinetics and Reaction Engineering (4 credits)
- ENCS 6021 Engineering Analysis (4 credits)
- One of the following courses:
 - CHME 6041 Chemical Engineering Process Dynamics and Control (4 credits)
 - CHME 6051 Chemical Process Engineering and Design (4 credits)



Course requirements (continued):

3 electives

For a list of technical elective and complementary courses, refer to the Graduate Student Handbook.

For advice on course selection, please contact Deniz Erol, deniz.erol@concordia.ca

Additional requirements: Attendance at 80% of the CME departmental seminar series. Attendance is taken with a sign-in sheet. The schedule of the seminars is communicated by email.



Recommended Course Plan for Students Starting in Fall: Fall 2025:

- CHME 6021 Advanced Chemical Engineering Thermodynamics (4 credits)
- ENCS 6021 Engineering Analysis (4 credits)
- CHME 6051 Chemical Process Engineering and Design

Winter 2026:

- CHME 6011 Advanced Transport Phenomena (4 credits)
- CHME 6031 Chemical Kinetics and Reaction Engineering (4 credits)
- Technical elective

Summer 2026:

- Technical elective
- Complementary course



Students can transfer up to 12 credits from the Graduate Diploma to the Master of Applied Science (MASc) program.

Please note that securing a supervisor is required for admission to the MASc program. Refer to the Graduate Student Handbook for the transfer process.

Important for all students:

- Most courses are offered once a year.
- Minimum pass grade is B-.
- One C rule. F is <u>NOT</u> allowed. If you think you will fail,
 DISC the course. DISC deadline:
- To have a full-time student status in any semester, you should be taking 9 or more credits of course work.



Welcome to Your Library! Chemical and Materials Engineering Graduate Orientation Melissa Rivosecchi Head, Vanier Library https://library.concordia.ca/help/questions/



Library Spaces



Webster (SGW)



Grey Nuns Reading Room (SGW)



Vanier (LOY)



Webster Library (SGW)









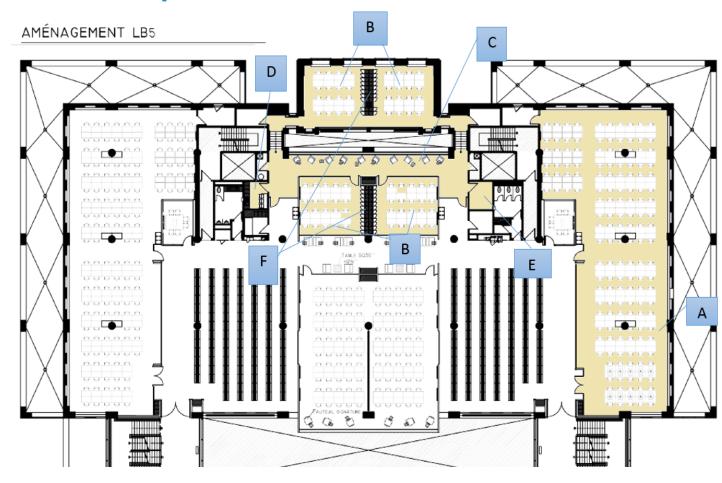




Webster Library, Graduate spaces, 5th floor

- A. Quiet reading room
- B. Four dissertation writing rooms
- C. Lounge
- D. Kitchenette
- E. Dedicated printer/copier/scanner
- F. Lockers & Shelves







Vanier Library (LOY)











Vanier Library, Graduate space, 3rd floor

Graduate group study room (VL-305)

Obtain access code when you arrive at the front desk





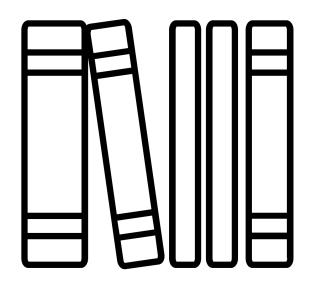
Your Concordia ID card is your Library card





How many items can you borrow?

Loan item limit	Hold item limit
100	50



Item type	Loan duration
Regular items	30 days (+ renewals)
Daily course reserves	I day
3-hour course reserves	3 hours
Accessories (e.g. mobile chargers, headsets)	I day
Equipment (e.g. calculators, white board markers)	I day
Laptops	3 day
Tablets	3 days
Technology Sandbox items	7 - 14 days





Technology & Equipment





Technology Sandbox d'ouverture/Open Hours
Fri 10:00 - 18:00





Off-campus access



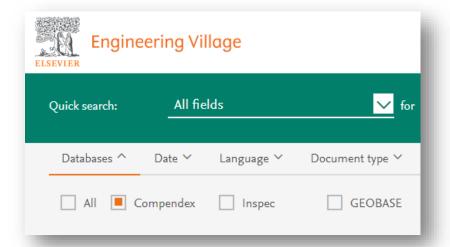


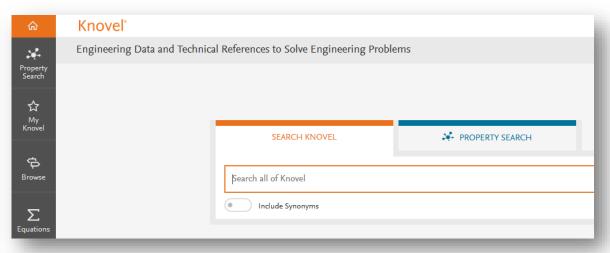
Best place to start searching

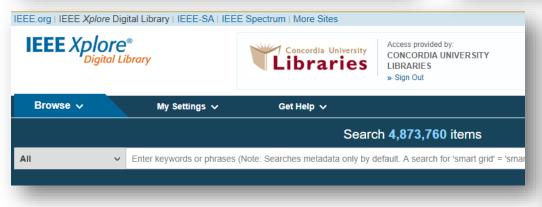




Digital Resources







: CAS SciFinder	Alerts
Searching for	References
& All	Search by Keyword, Substance Name, CAS RN, Patent Number, PubMed ID, AN, CAN, and/or DOI
⊘ Substances	Enter a query
▲ Reactions	- Author Name - Enter last name, first name middle name.
■ References	
📜 Suppliers	+ Add Advanced Search Field Learn more about 1
♣ Biosequences	Launch CAS Lexicon CAS Lexicon enables you to browse the CAS General Thesaurus substances to build a Reference query with up to 1,000 indexed.
● Retrosynthesis	

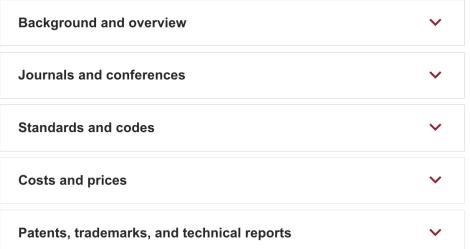


Engineering & computer science guide

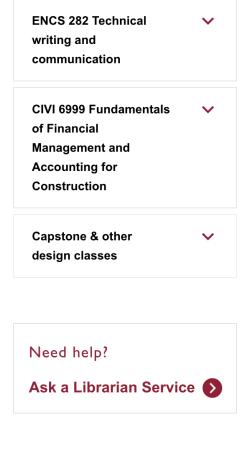
Engineering & computer science

Getting started with library search

Make use of the following library resources to find scholarly information related to engineering and computer science.



Course guides





Online learning modules and workshops

Learning kits



Quick Things for Digital Knowledge

Short introductions to key topics in the digital world



Critical Toolkit for Navigating Information

Quick units on critical information literacy skills



Library Research Skills Tutorial

A guide to the basics of academic research



Library videos

Video tutorials on library services and resources



Udemy

Self-paced online courses on professional and technical skills



Help & How to guides

Tips on finding resources, writing, and citing

Using Zotero for grads | GRTR243

Description

In this hands-on workshop, you will learn how to use Zotero, a desktop and web-based tool that you can use to organize the references you find in library catalogues and databases, insert citations in your papers, and prepare bibliographies or reference lists quickly and effectively in a wide variety of citation styles (e.g., APA, MLA, Chicago, c.). We will look at integrating Zotero with Microsoft Word, LibreOffice, and Google Docs. We will also cover how to share folders and citations (e.g., for collaborative projects or to disseminate reading lists). No experience with Zotero is necessary.

Please ensure that you set up Zotero in advance of the workshop. You can find instructions on how to set up Zotero on the Library website:

https://library.concordia.ca/help/workshops/zotero-prerequisites.pdf

Learning Objectives

In this workshop, participants will learn how to:

- Use Zotero to manage citations and automate the creation of bibliographies.
- Integrate Zotero with Microsoft Word and Google Docs when writing papers.
- Share Zotero folders for collaborative projects or to disseminate course reading lists.

Sign in to register

How it works

Event details

Workshop location

Sir George Williams

Start date

Tuesday, September 23, 2025

End date

Tuesday, September 23, 2025

Workshop days

Tuesday

Time

From 13:00 to 14:30

Capacity

21 / 25



Ways to contact the library

Ask Us desk, chat, email or phone

FOR QUICK OR GENERAL QUESTIONS













Follow us on











WHAT WE DO?

- Represent the collective interests and promote the general welfare of the graduate students in the ENCS Faculty.
- Represent graduate students on various boards, councils, and committees in the ENCS Faculty and at Concordia University and to promote their interests in accordance with the Accreditation Act.
- Promote the educational, social, recreational, and cultural interests of its members.
- Co-operate with other organizations having similar interests in promoting student activities and interests.
- Consider and support activities which enhance the quality of life for students at Concordia University.



THE TEAM...

Consists of 10 members and categorized into 2 divisions.

Executive team(4)

- President
- Vice president Internal
- Vice president External
- Vice president Finance

Department Representatives(6)

- Building, Civil and Environmental Engineering (BCEE)
- Mechanical, Industrial and Aerospace Engineering (MIAE)
- Concordia Institute for Information Systems Engineering (CIISE)
- Chemical and Materials Engineering (CME)
- Computer Science and Software Engineering (CSSE)
- Electrical and Computer Engineering (ECE)



TEAM

President: Madessh Perumalsamy	CISSE: Kaushikan
Vp external: Vinay Kumar	CSE: Sanjay Upadhaya
Vp internal: Sneha Parshotam	ECE: Ramprasad Giriraj
Vp finance: Hassan Gharaei	MIAE: Manikanta Bailuri
BCEE: Sai Tarun	CME: Azita Ebrahimitouri

Some workshops done by ECSGA:



CME department:

Fueling the Future: Sustainable Emissions in the Rocket Science

CSSE Department:

Building a Standout Profile on LinkedIn (Collaboration with CAPS)

MIAE Department:

Negotiate like a Pro: Secrets of successful negotiating

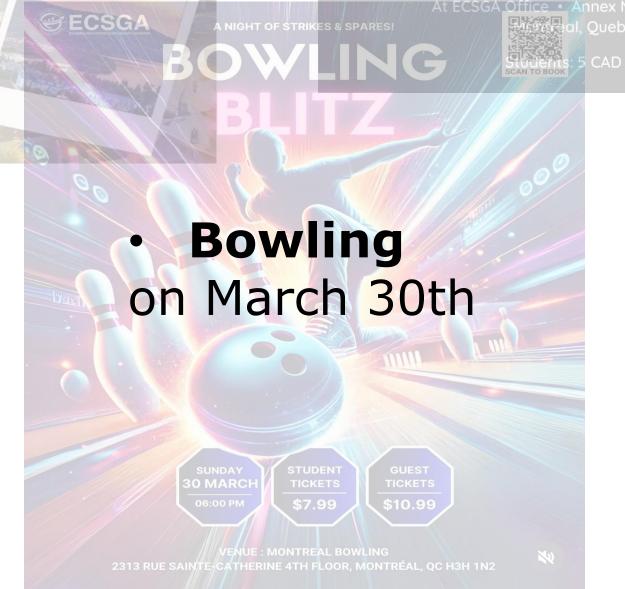
BCCE Department:

Career development guidance













Future Workshop for CME:

Potluck Social Event

LinkedIn Profile Workshop

CV Writing Workshop



NEXT EVENT







ECSGA MEET & GREET

Connect with new peers, enjoy ice-breaking games, delicious food, and exciting goodies!

HALL BUILDING 2ND FLOOR

16th September

Frosh Event!

- ✓ Meet fellow freshers and make new friends.
- ✓ Academic Pathways: Our experienced Student Peer Advisors will guide you through the diverse course offerings, explain how you can choose your courses, and provide insights on selecting the right courses to align with your career goals.
- ✓ Peer Interaction: Connect with your fellow graduate students.
- ✓ Fun Activities: Enjoy a variety of fun activities, games, talent show, to help you relax, unwind, and have a great time.

Date: 16th September 2025: You will receive an email with the exact time and date.

Location: Hall Building, 2nd Floor, H220





Thank you all, for your time and patience! Stay tuned with ECSGA.

Feel free to reach out to us at:

Website: concordiaecsga.ca

Address: Concordia University, 2170, Basement. MU 101, Behind Hall

Building on Bishop Street, Montreal, QC

Email: info@concordiaecsga.ca, cme@concordiaecsga.ca

Phone Number: 514-848-2424 ext. 8604



























Graduate Professional Development

Javier Ibarra-Isassi, PhD Graduate Research and Thesis Support coordinator

Our OFFERINGS











Professional Skills (GradProSkills)



Career development

Program: PhD Career Connect

Workshops: Job search and interview skills, CV & cover letter, Brewing Success



Communication

Program: Strategic Public Communications

Workshops: Presenting, language training, public speaking



Leadership & collaboration

Program: Graduate Leadership Development Certificate

Workshops: Project management, negotiating



Teaching

Program: Graduate Seminar in University Teaching

Workshops: TA orientation, navigating challenges in classroom



Research and Thesis Support



Graduate funding applications

Program: Grant and application support

Workshops: Funding information, application preparation



Conducting research

Program: Python & R programming

Workshops: Reading skills, literature review, time management



Research communication

Program: Public Scholars, 3MT & MT180

Workshops: Academic writing and editing, publishing, presenting



Thesis support

Program: Thesis Boost Writing Retreat

Workshops: Thesis writing and submission, student-supervisor relationship



Visit our webpages!

• Our programs and workshops are found in two pages:





Stay up-to-date!



Websites

- concordia.ca/gradproskills
- concordia.ca/thesis



Newsletter & LinkedIn

- Newsletter out every other Thursday!
- linkedin.com/showcase/gradproskills



E-mail gradproskills@concordia.ca



Scan to visit our website

