

Orientation session Summer 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. Zhibin Ye

**Department of Chemical and Materials Engineering
Concordia University, Montreal, Canada**

CME thesis-based programs

➤ MAsC

45 credit program: courses + thesis; typically, 2 years

➤ PhD

90 credit program: courses + thesis; typically, 4 years

Read the CME Graduate Student Handbook. 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>

➤ Courses – 16 credits

Mandatory:

- ** 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.)

Discuss with your supervisor on course selection!!!

MASc program requirements

<https://www.concordia.ca/academics/graduate/chemical-engineering-masc.html>

➤ Courses – 16 credits

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.)
MECH 6141 Heat Exchanger Design (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

<https://www.concordia.ca/academics/graduate/chemical-engineering-masc.html>

➤ Research and thesis

ENGR 8901 MASc Research and Thesis (29 cr.)

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

Department seminars by invited speakers: mandatory to attend 80%.

PhD program requirements

<https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html>

➤ Courses – 12 credits

Mandatory:

Discuss with your supervisor on course selection!!!

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

**** CHME 6981 Chemical Engineering Research Protocols and Safety (4 cr.)**

– required prior to lab access; take ASAP

**** at least 4 cr. from CME PhD courses (> 30)**

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.)

....

PhD program requirements

<https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html>

➤ Courses – 12 credits

Optional:

**** You may take 1 course outside the PhD course list (get permission of GPD);**

It 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. CHME 6001 – Project in CME to obtain the missing credit.

PhD program requirements

<https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html>

➤ Comprehensive and proposal exams, and Seminar - 8 credits

ENCS 8501 Comprehensive Exam (0 cr.) – Critical Literature Review

Generally, within 1st year of PhD program; submit a critical literature review report and defend

ENCS 8511 Doctoral Research Proposal (6 cr.)

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

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!!!

PhD program requirements

<https://www.concordia.ca/academics/graduate/chemical-engineering-phd.html>

➤ Research and thesis

ENGR 8911 Doctoral Research and Thesis (70 cr.)

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

Student resources

- Scholarship and bursary opportunities available

Announced from time to time; will forward once announced

- International Student Office

<https://www.concordia.ca/students/international.html>

- Student Hub

<https://www.concordia.ca/students/services.html>

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
- **Kerri Warbanski, Chemical Laboratory Technician**
kerri.warbanski@concordia.ca
- **Zhibin Ye, Graduate Program Director (GPD) – Thesis programs**
Zhibin.ye@concordia.ca
- **Department chairs**

Help available at CME department

➤ Administrative questions

Programs Coordinator, Antonios Daskalakis
Department Administrator, Erica Howse

➤ Academic questions

GPD

➤ Lab safety questions

**Technical supervisor, Harriet Laryea, and Chemical Laboratory Technician, Kerri Warbanski,
as well as EHS staff**



**Wish you best success in
your study at CME !**



CME Non-thesis Graduate Programs

CME Graduate Student Orientation
Summer 2025

Deniz Erol, Graduate Program Director, Non-thesis Programs

Graduate Certificate in Chemical Engineering

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.

Graduate Certificate in Chemical Engineering

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)

Graduate Certificate in Chemical Engineering

Course Plan for Students Starting in Summer:

Recommended

Summer 2025:

- ENCS 6021: Engineering Analysis (4 cr)

Fall 2025:

- CHME 6021 Advanced Chemical Engineering Thermodynamics (4 cr)
- Technical elective

Winter 2026:

- CHME 6011 – Advanced Transport Phenomena (4 cr)

Alternative

Summer 2025:

- Technical elective

Fall 2025:

- ENCS 6021: Engineering Analysis (4 cr)

Winter 2026:

- CHME 6011 – Advanced Transport Phenomena (4 cr)
- CHME 6031 Chemical Kinetics and Reaction Engineering (4 cr)

Graduate Certificate in Chemical Engineering

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 their course 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.

Graduate Diploma in Chemical Engineering

General requirements:

- Diploma 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)
- 3 electives:
 - 2 technical electives, at least one materials course
 - At least one complementary course

Graduate Diploma in Chemical Engineering

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.

Graduate Diploma in Chemical Engineering

Recommended Course Plan for Students Starting in Summer:

Summer 2025:

- Technical elective
- Complementary course
- Alternatively, you can take ENCS 6021 – Engineering Analysis (4 cr)

Fall 2025:

- ENCS 6021 – Engineering Analysis (4 cr), if you took this before you can take a technical elective
- CHME 6021 – Advanced Chemical Engineering Thermodynamics (4 cr)
- CHME 6051 – Chemical Process Engineering or Design (4 cr) or Technical elective

Winter 2026:

- CHME 6011 – Advanced Transport Phenomena (4 cr)
- CHME 6031 – Chemical Kinetics and Reaction Engineering (4 cr)
- CHME 6041 – Chemical Engineering Process Dynamics and Control (4 cr)

Graduate Diploma in Chemical Engineering

Additional requirement: 80% attendance to seminars.

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, no F. If you think you might fail and it is too late in the semester, DISC the course. Check DISC deadlines. Summer 1: June 11; Summer 2: July 22.**
- 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!

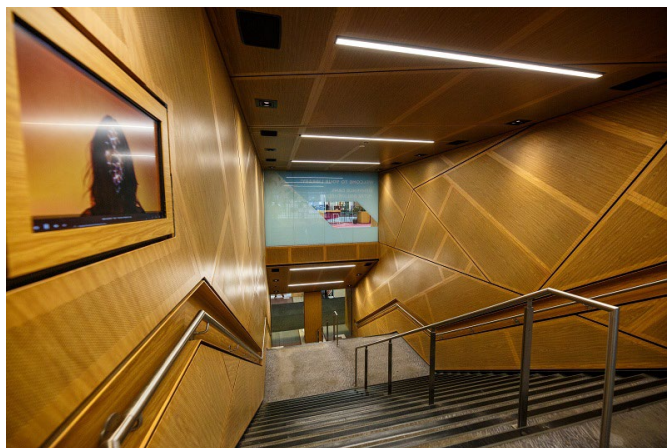
Chemical and Materials Engineering Graduate Orientation

Chloe Lei

Teaching & Research Librarian, Engineering & Computer Science

chloe.lei@concordia.ca

Library Spaces



Webster (SGW)

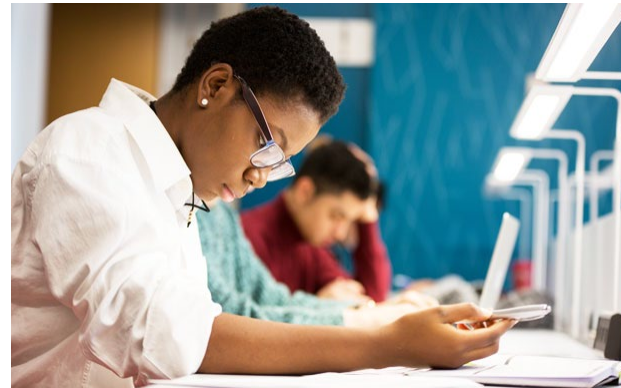


Grey Nuns Reading Room
(SGW)



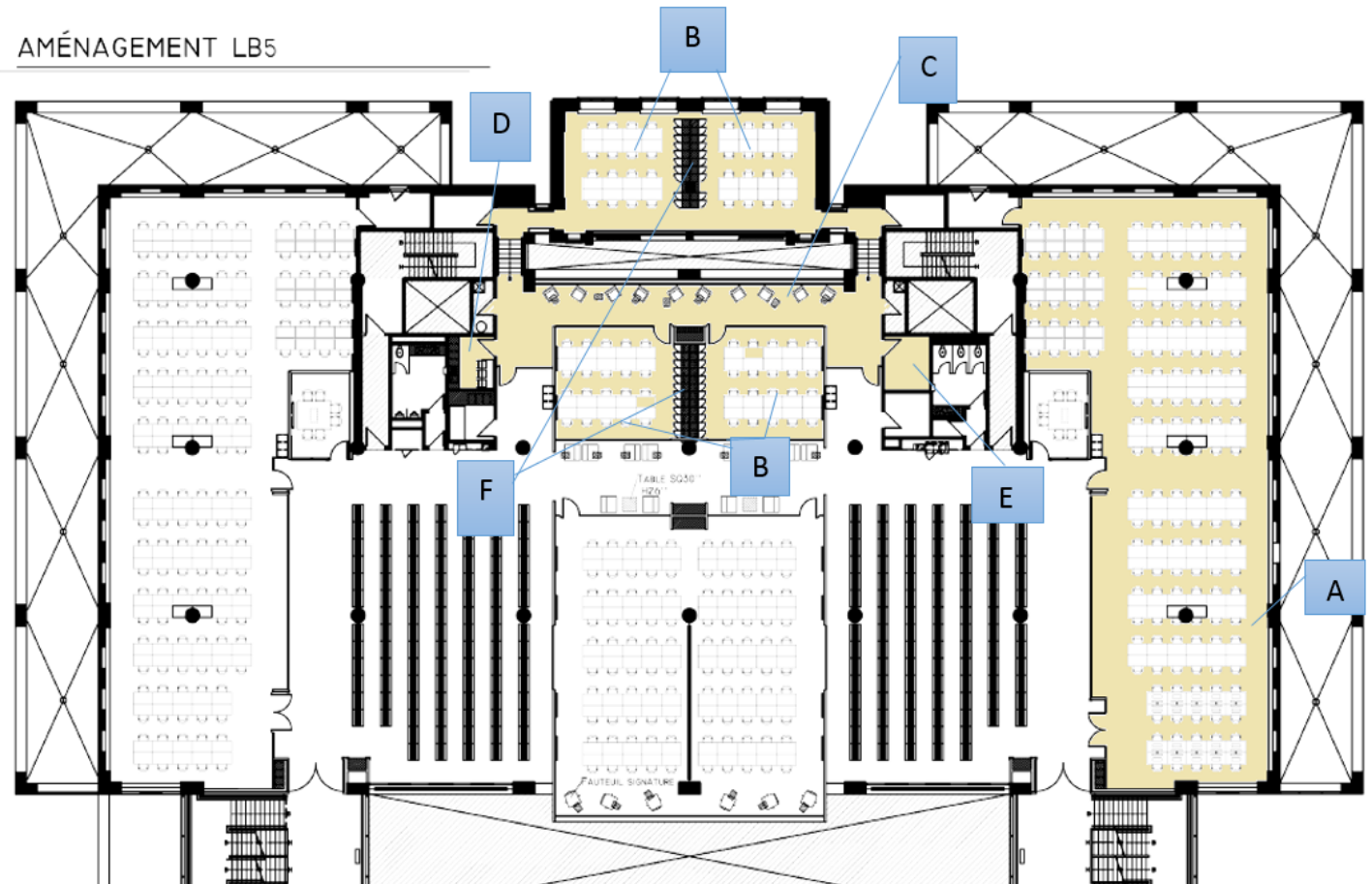
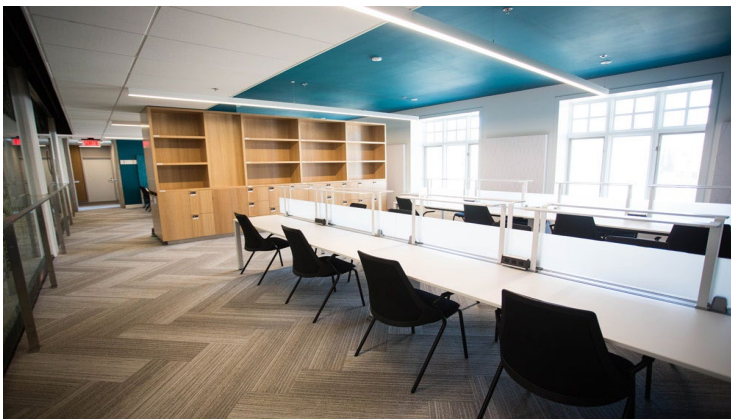
Vanier (LOY)

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



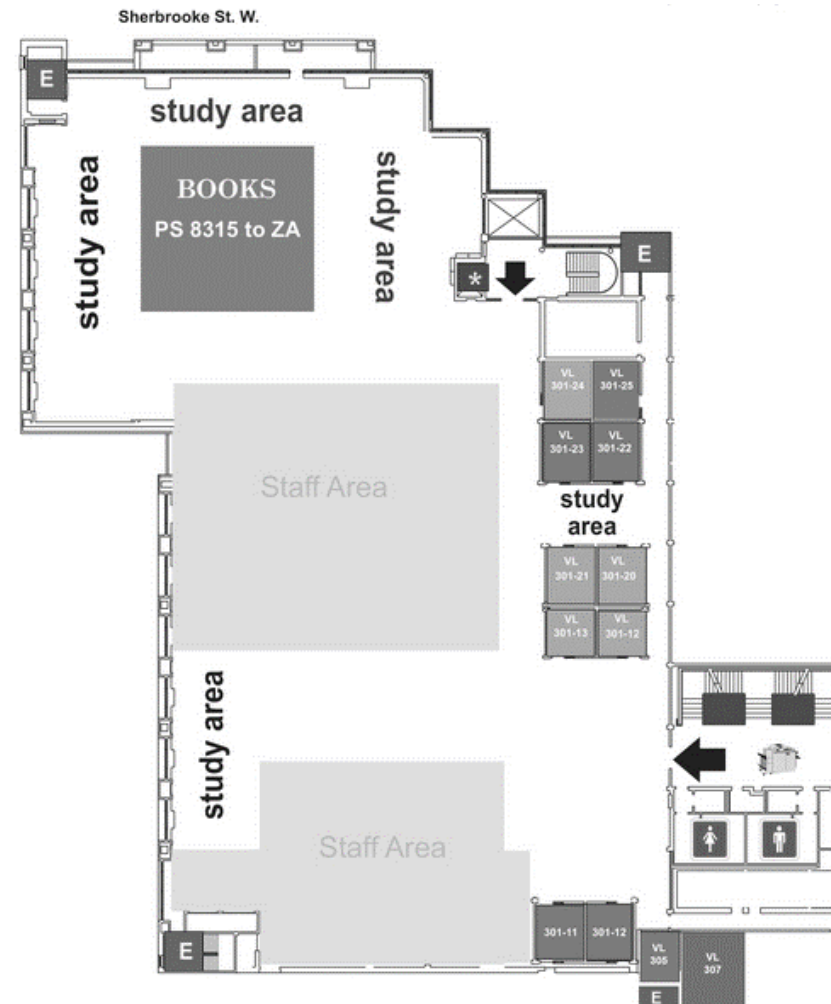
Vanier Library (LOY)



Vanier Library, Graduate spaces, 3rd floor

Obtain access codes when you arrive

- A. Graduate study room (VL-307)
 - Assigned shelves
- B. Graduate group study room (VL-305)

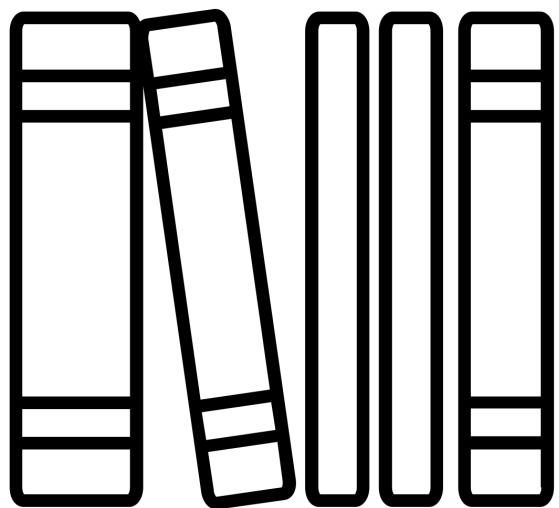


Your Concordia ID card
is your Library card



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	1 day
3-hour course reserves	3 hours
Accessories (e.g. mobile chargers, headsets...)	1 day
Equipment (e.g. calculators, white board markers...)	1 day
Laptops	3 day
Tablets	3 days
Technology Sandbox items	7 - 14 days



Technology & Equipment

Technology Sandbox



Off-campus access



The image shows a login page for Concordia University. At the top, the university's logo and name are displayed. Below this, the text "Sign in" is centered. Underneath, there are two input fields: "Netname" and "Password". At the bottom, there is a large red button labeled "SIGN IN". The background of the page is a light gray with a faint image of a building and trees.

UNIVERSITÉ
Concordia
UNIVERSITY

Sign in

Netname

Password

SIGN IN

Best place to start searching



The screenshot shows the library website with a dark navigation bar at the top containing links: FIND, HELP & HOW-TO, RESEARCH SUPPORT, TECHNOLOGY, LOCATIONS & HOURS, and ABOUT THE LIBRARY. A magnifying glass icon is on the right. A blue box highlights the URL <https://library.concordia.ca>. Below this, the text "Sofia Discovery tool" is followed by a yellow arrow pointing to a search bar. The search bar contains the placeholder text "Books, ebooks, articles, and more" and a "Search" button. Below the search bar are links for "User guide" and "Advanced search". At the bottom, a blue footer bar contains six icons and their corresponding labels: "DATABASES BY SUBJECT", "E-JOURNALS", "COURSE RESERVES & TEXTBOOKS" (with a yellow arrow pointing to it), "CITATION GUIDES & ZOTERO", "LOANS & RETURNS", and "BOOK A GROUP STUDY ROOM" (with a yellow arrow pointing to it).

FIND HELP & HOW-TO RESEARCH SUPPORT TECHNOLOGY LOCATIONS & HOURS ABOUT THE LIBRARY

<https://library.concordia.ca>

Sofia Discovery tool


Books, ebooks, articles, and more Search

User guide
Searching Sofia

Advanced search

DATABASES BY SUBJECT E-JOURNALS COURSE RESERVES & TEXTBOOKS CITATION GUIDES & ZOTERO LOANS & RETURNS BOOK A GROUP STUDY ROOM

Digital Resources




Engineering Village

Quick search: All fields ☐ for

Databases ☐ Date ☐ Language ☐ Document type ☐

☐ All ☒ Compendex ☐ Inspec ☐ GEOBASE



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Search **4,873,760** items

All ☐ Enter keywords or phrases (Note: Searches metadata only by default. A search for 'smart grid' = 'smart grid')

CAS SciFinder® Alerts

Searching for...

All
Substances
Reactions
References
Suppliers
Biosequences
Retrosynthesis

References

Search by Keyword, Substance Name, CAS RN, Patent Number, PubMed ID, AN, CAN, and/or DOI.

Enter a query...

Author Name Enter last name, first name middle name.

+ Add Advanced Search Field

Learn more about S

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

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 (online) | 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

📍 Online

Start date

📅 Tuesday, May 13, 2025

End date

📅 Tuesday, May 13, 2025

Workshop days

📅 Tuesday

Time

🕒 From 15:00 to 16:30

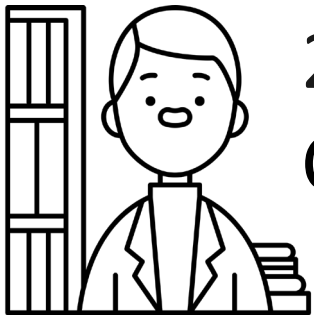
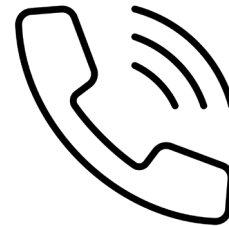
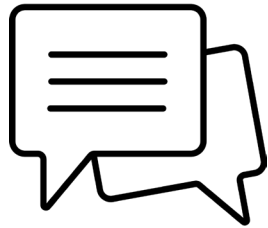
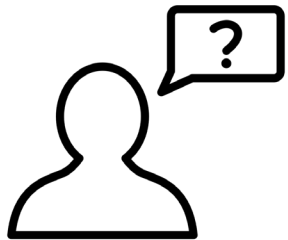
Capacity

👥 17 / 20

Ways to contact the library

1) Ask Us desk, chat, email or phone

FOR QUICK OR GENERAL QUESTIONS



2) Contact your subject librarian,
Chloe Lei, chloe.lei@concordia.ca

FOR MORE IN-DEPTH CONSULTATIONS



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Graduate Professional Development

Maria Kyres

Coordinator, Graduate Career Development

concordia.ca/gradproskills



Our OFFERINGS



WORKSHOPS

Hundreds of free
workshops per year



EVENTS

3MT/MTI80, Thesis Boost,
PhD Career Connect &
more



CERTIFICATES

Record of participation
and certificates



OPPORTUNITIES

Doctoral Internship
Program, Work
opportunities



Professional Skills (GradProSkills)



Career
development

Program: PhD Career Connect

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



Communication

Program: Strategic Public Communications Certificate

Workshops: Presenting, language training, pitching ideas



Leadership &
collaboration

Program: Graduate Leadership Development Certificate

Workshops: Project management, negotiating



Teaching

Program: Graduate Seminar in University Teaching Certificate

Workshops: TA orientation, grading and feedback

Research and Thesis Support



Conducting
research

Program: Python & R programming

Workshops: Reading skills, literature review, time management



Graduate funding
applications

Program: Grant and application support

Workshops: Funding information, application preparation



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:

Professional skills

concordia.ca/gradproskills

Training and resources by skill



Career development

Recognize your skills, identify job opportunities that align to your values and communicate effectively with employers.




Communication

Be a better communicator in school and beyond by improving your oral, written and interpersonal communication.



Leadership and collaboration

Build your emotional intelligence, capacity to work in teams and ability to lead projects.




Teaching

As a TA or aspiring teacher, learn best practices in training design and delivery to fuel your passion for teaching.

Professional development for credit


Do you need an elective credit to complete your academic program? Consider enrolling in a 1-credit professional development course (graduate calendar course code GSPD). Tuition



Thesis-based students


concordia.ca/thesis

Graduate research and thesis support




Graduate funding

Discover the wide range of funding sources for research-based students, and get support preparing a strong scholarship application.




Conducting research

Our workshops and resources help you hone important research skills such as doing literature reviews and analyzing data sets.



Research communication

Learn how to communicate your research to discipline-specific and general audiences through participation in conferences, publishing articles and more.




Thesis preparation

From planning to writing and submission, the School of Graduate Studies supports you in preparing your thesis.

Thesis submission process

Our thesis submission guide walks you through the structured process of preparing your initial submission, defending, formatting and making a final



Stay up-to-date!



Websites

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



Newsletter & LinkedIn

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



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gradproskills@concordia.ca



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