Université Concordia University

GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Department of Chemical and Materials Engineering

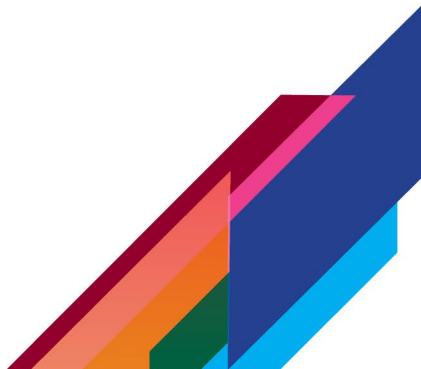
Orientation session Winter 2026

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



UNIVERSITÉ Concordia UNIVERSITY

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 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

❑ **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.)

Discuss with your supervisor on course selection!!!

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)!!!

PhD Program Requirements- Cont.

- 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.

PhD Program Requirements- Cont.

- 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.

PhD Program Requirements- Cont.

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

❑**(b-d) Comprehensive and proposal exams, and Seminar - 8 credits**

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

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

➢ **(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!!!

PhD Program Requirements- Cont.

- 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

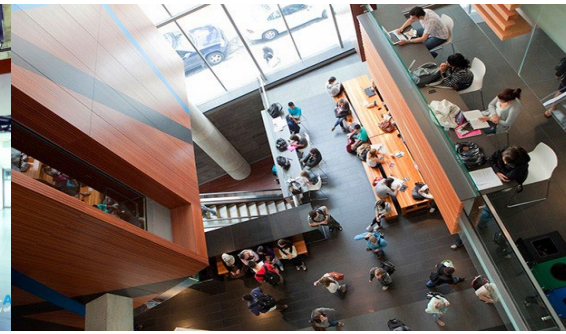
- **Administrative questions**
  Programs Coordinator, Antonios Daskalakis
  Department Administrator, Erica Howse

- **Academic questions**
  Department Chair, Alex De Visscher
  GPD, Sana Jahanshahi Anbuhi

- **Lab safety questions**
  Technical supervisor, Harriet Laryea
  EHS staff

UNIVERSITÉ Concordia UNIVERSITY





Wish you best success in your study at CME !

CME Non-thesis Graduate Programs

CME Graduate Student Orientation

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

Recommended Course Plan for Students Starting in Winter:

Option 1

Winter:

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

Fall:

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

Option 2

Winter:

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

Fall:

- ENCS 6021 – Engineering Analysis (4 credits)
- Technical elective

Graduate Certificate in Chemical Engineering

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.

Graduate Certificate in Chemical Engineering

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.

Graduate Diploma in Chemical Engineering

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)

Graduate Diploma in Chemical Engineering

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.

Graduate Diploma in Chemical Engineering

Recommended Course Plan for Students Starting in Winter:

Winter:

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

CHME 6011 and CHME 6031 are only offered in the Winter.

Summer:

- Technical elective (can take Engineering Analysis if offered)
- Elective

Fall:

- CHME 6021 – Advanced Chemical Engineering Thermodynamics (4 credits) (only offered in the Fall)
- ENCS 6021 – Engineering Analysis (4 credits) (typically offered year-round)
- CHME 6051 – Chemical Process Engineering and Design

Graduate Diploma in Chemical Engineering

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:

- **Good academic standing: Minimum GPA of 2.70**
- **Most courses are offered once a year.**
- **Minimum pass grade is B-.**
- **One C rule. F is NOT allowed. If you think you will fail, DISC the course. DISC deadline: March 23, 2026**
- **To have a full-time student status, you should be taking 9 or more credits of course work.**

ENGINEERING AND COMPUTER SCIENCE GRADUATE ASSOCIATION (ECSGA)

ECSGA

ECSGA

Our Mission

The mission of ECSGA is to optimally, responsibly, and efficiently serve its members.

Our Vision

Our vision is to lead the way in shaping a dynamic and visionary graduate student community within the fields of engineering and computer science.

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 of 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)

EXECUTIVE TEAM

President

Sai Dinesh Gundu

Vice-President Internal

Himanshu Rana

Vice-President Finance

Sanaz Naghdi

Vice-President External

Shree Murugan Viswanathan

DEPARTMENT REPRESENTATIVES

CSSE

Vedant Gadhavi

ECE

Adilmanzoor Kalilur Rahman

BCEE

Tashwini Manjunath

MIAE

Roya Nazari

CIISE

Preetham Reddy Yerraguntla

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:**

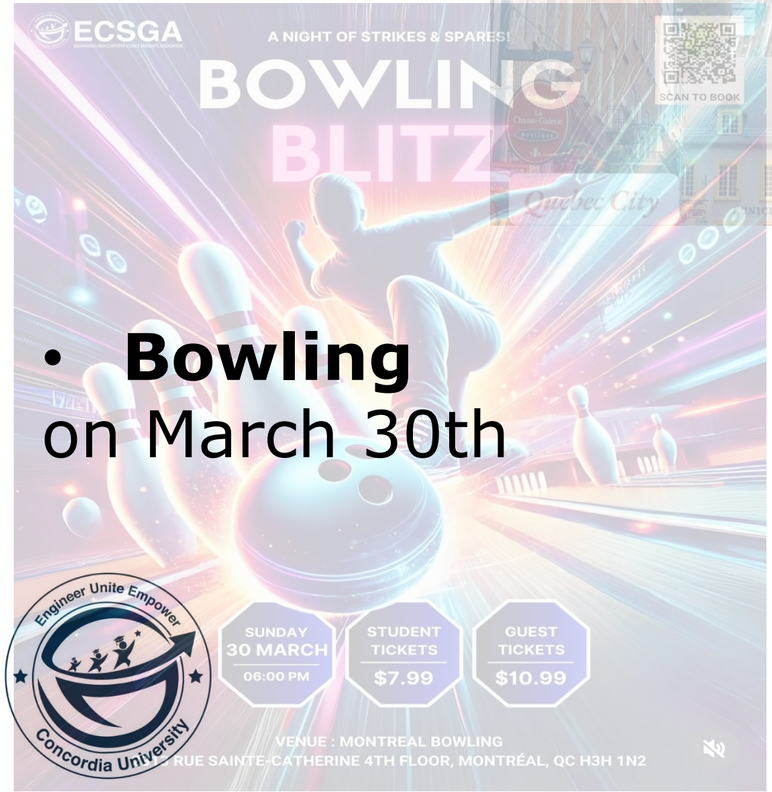
Career development guidance

Some external events done

Quebec city

- One-day trip on November 10th

- **Pumpkin craving** on October 31st



- **Bowling** on March 30th

Mount Tremblant

- One-day trip on October 19th

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

Université Concordia University

SCHOOL OF GRADUATE STUDIES

Graduate Professional Development

Racha Cheikh-Ibrahim

Officer, Graduate Professional Development

concordia.ca/gradproskills

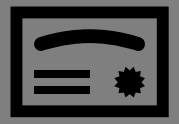
Our OFFERINGS

WORKSHOPS

Hundreds of free workshops per year

EVENTS

3MT/MT180, Thesis Boost, Brewing Success & more



CERTIFICATES

Record of participation and certificates

OPPORTUNITIES

Doctoral Internship Program, Work opportunities

CONCORDIA
SCHOOL OF GRADUATE STUDIES

Professional Skills (GradProSkills)

Career development	**Program:** PhD Career Connect & Brewing Success **Workshops**: Job search and interview skills, CV & cover letter
Communication	**Program:** Strategic Public Communications Certificate **Workshops**: Presenting, language training, and pitching ideas
Leadership & collaboration	**Program:** Graduate Leadership Development Certificate **Workshops**: Project management, negotiating, and team dynamics
Teaching	**Program:** Graduate Seminar in University Teaching Certificate **Workshops**: TA orientation & grading and feedback

Research and Thesis Support

 Conducting research	**Program:** Excel, Python & R programming **Workshops:** Reading skills, literature review, and time management
 Graduate funding applications	**Program:** Grant and application support **Workshops:** Funding information, application preparation
 Research communication	**Program:** Public Scholars program and 3MT & MT180 competitions **Workshops:** Academic writing and editing, publishing, and presenting
 Thesis support	**Program:** Thesis Boost and Mini-Boost & Graduate (re)orientation **Workshops:** Thesis writing and submission, student-supervisor relationship

Doctoral Peer Mentorship Program

- Build community with fellow PhD students
- Gain clarity on expectations and explore helpful strategies
- Boost confidence and get support right from the start of your journey
- **Deadline to join, January 13**

Scan to sign up

CONCORDIA
SCHOOL OF GRADUATE STUDIES

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

CONCORDIA
SCHOOL OF GRADUATE STUDIES

Welcome to your Library!

Chemical and Materials Engineering Graduate Orientation

Rudi Aker
Teaching & Research Librarian, Engineering & Computer Science
rudi.aker@concordia.ca

Library Overview

01 Welcome

02 Library Services

03 Library Access

04 Library Spaces

05 Getting connected

Welcome!

The Concordia Library has so much to offer throughout your studies & at every point of your academic journey.

The Library is an access point to:

- Specialized research expertise
- Key research tools
- Collaborative & independent study spaces
- Workshops & skill -building opportunities
- Equipment, technology, and software
- & more!

Library Services

RESEARCH SUPPORT

- 1-on-1 consultations with subject librarians
- Support with literature reviews, theses, research data management, & more.
- Guided research & discovery.

RESEARCH TOOLS

- Access to specialized databases & resources.
- Collections of engineering materials (standards, patents, trademarks).
- Access to materials outside of Concordia through Interlibrary loans.

LEARNING SUPPORT

- Workshops to develop & strengthen academic skills.
- Tutorials & guides for research, writing, and more.
- Study spaces & equipment for independent and collaborative work.

Library Access

In addition to learning & research materials, the Library also has **equipment and technology** available for you to borrow. **Printing services** are also available at the Webster and Vanier libraries and at multiple other locations on both campuses.

Your Student ID is your Library card.

Access online materials with netname and password.

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

Library Spaces

Both libraries have spaces and resources accessible to all students, as well as **dedicated spaces for graduate students.**

More information on the general-use study spaces available at both Webster and Vanier libraries can be found on the library website.

library.concordia.ca

WEBSTER LIBRARY

SGW CAMPUS

Dissertation Writers' Rooms

- LB-561 “Iceland”
- LB-562 “Venezuela”
- LB-564 “Mali”

Reading Room

- LB-545 “Spain”

VANIER LIBRARY

LOYOLA CAMPUS

Graduate Study Room

- VL-305

** Visit the reference desk to obtain an access code. This room is available on a first-come, first-served basis, though can be reserved online.*

Getting connected!

library.concordia.ca

Online

- Ask-a-Librarian service
- Library chat service
- Email your subject librarian
  - Rudi Aker -- rudi.aker@concordia.ca

In-person

- Visit the Ask Us! desk at the Webster Library (SGW Campus)
- Visit the Reference Desk at the Vanier Library (Loyola Campus)

Thank you!

We hope to see you at the Library!