

# Orientation for New Graduate Students

- Introduction to Your Department
- Regulations of our Graduate Program and Available Resources



# People to Know in the Department



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# Diversity and Inclusion: Building the Next Generation Department of Physics

Our [statement](#):

“Our Department of Physics at Concordia University is a rapidly diversifying environment. We embrace this diversity by a firm commitment to inclusiveness. Everyone who dedicates their time and passion to physics belongs here and deserves to feel equally valued and respected no matter their gender, sexual orientation, ethnicity, religion, age, or disability”.





# Diversity and Inclusion

## Groups and Resources



- [International Students Office \(ISO\)](#)
- [Women in Physics Canada](#)
- [Queer Concordia](#)
- [Aboriginal Student Resource Centre](#)
- [Multi-Faith and Spirituality Centre](#)
- [Counselling & Psychological Services](#)
- [Access Centre for Students with Disabilities](#)





# Montreal

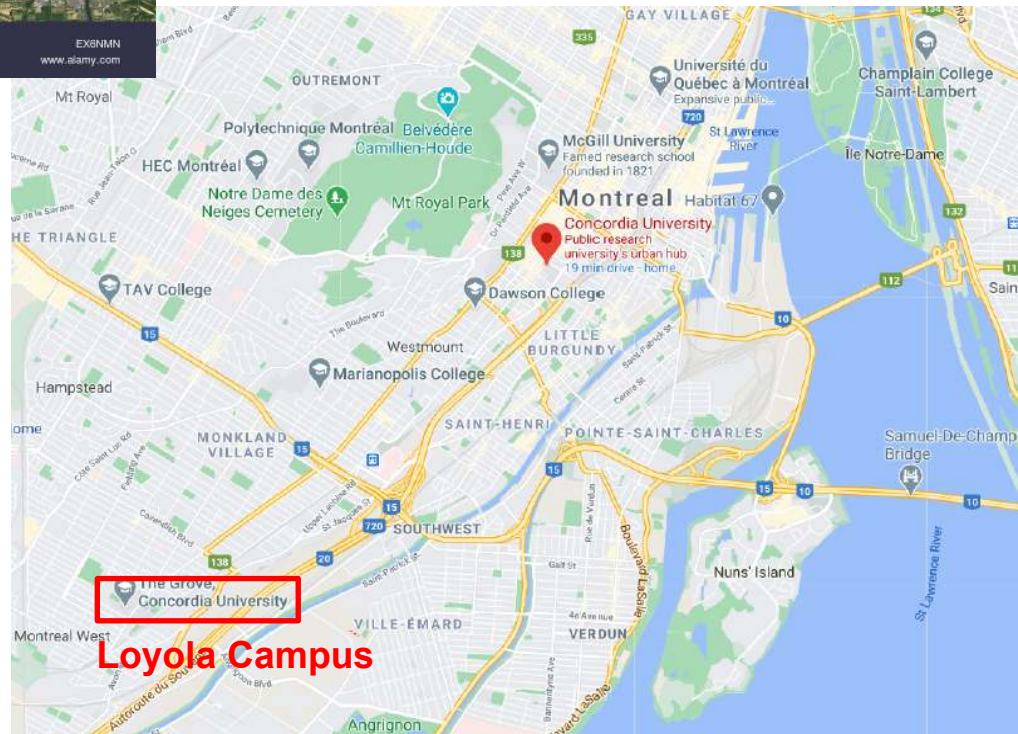


Island of Montreal



Loyola Campus main building

- Concordia located in Montreal
- Two campuses



## Physics Department Spaces



### SP Building 2<sup>nd</sup> Floor (West Broadway side)

- Physics Teaching Labs

### SP Building 3<sup>rd</sup> Floor

- Offices of Chair, UPD, Graduate Program Assistant (GPA), GPD
- Offices for (most of) Physics Faculty and TAs
- Physics Department Kitchen

### SP Building 5<sup>rd</sup> Floor

- Offices for some TAs, faculty and visitors

### Research Labs

Basement, 3<sup>rd</sup> & 5<sup>th</sup> floor, PERFORM  
(see faculty webpages)



# Science Pavilion – Home of (most of) the Department



Inside and outside of SP building





## Mid-Sized and Close-Knit Department... ...in a Big Multidisciplinary University

~180 undergraduate physics students

- Physics Major
- Biophysics specialization
- Physics specialization
- Honours program
- Biophysics minor

~3000 students in service courses and  
elective courses

~45 graduate students

- MSc in Physics
- PhD in Physics



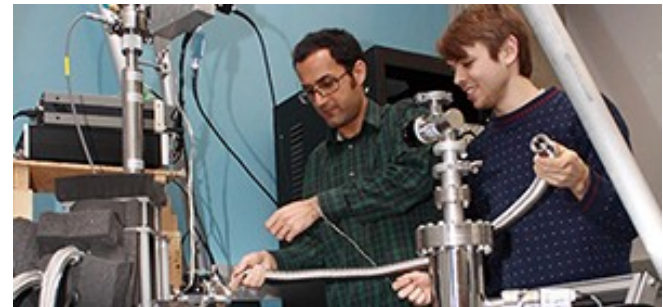
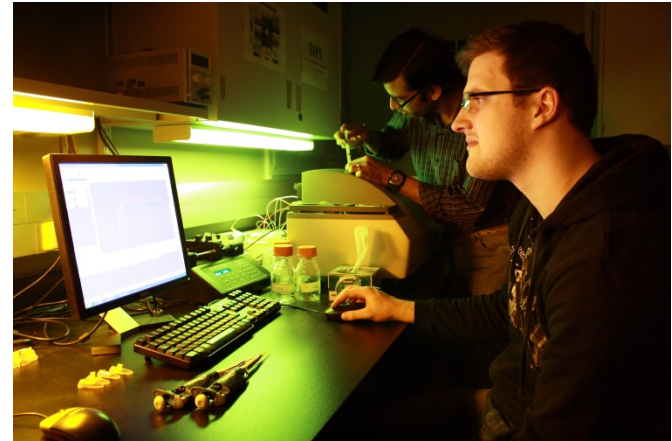




<http://www.concordia.ca/artsci/physics.html>

## Research:

- Condensed Matter Physics / Nano (Theory and Experiment)
- Biomedical Physics
- Molecular Biophysics
- Photonics
- Theoretical Particle Physics
- Physics Education
- Computational Physics



## Alumni of our graduate programs

**Dr. Joshua Island, MSc 2011**  
Assistant Professor  
*University of Nevada, Las Vegas*



**Dr. Tabassom Hamidfar, PhD 2019**  
Postdoctoral Fellow  
*Northwestern University*

# Colloquia

An “inspiring overview of a specific field”, given by experts.

Accessible to everyone (first-year graduate students)

Avoid technical details, too many ideas

Spark discussion and conversation

Most speakers are from outside Concordia.

If you notice a speaker in your field, this is a great opportunity to network!

**Colloquia will occur every week, Wednesday 2:45 – 4:00 pm.**

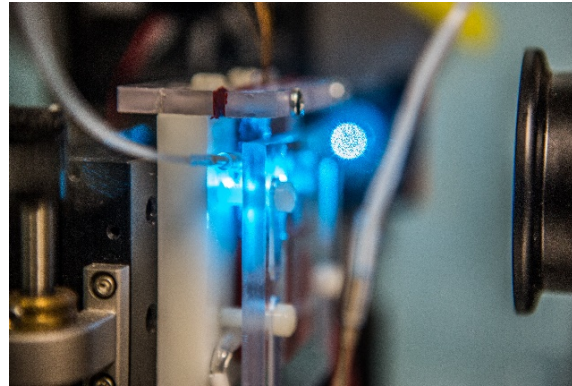
(the talk starts at 3 PM, but there is some mingling before)

Attendance is not required (unless you are registered in PHYS 861), but **highly recommended!**

## Equipment and Facilities



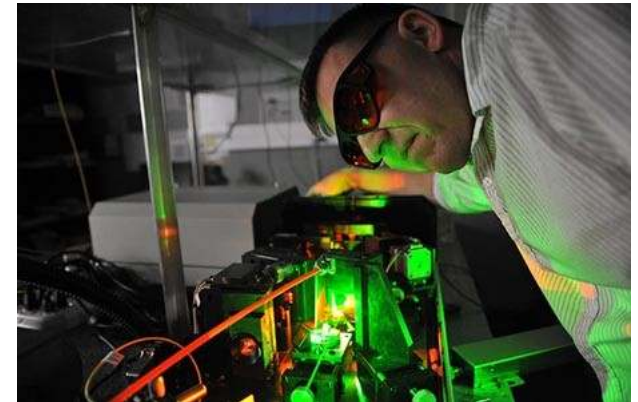
Medical MRI equipment (PERFORM)



Laser spectroscopy and photonics equipment



Cryostat for transport measurements

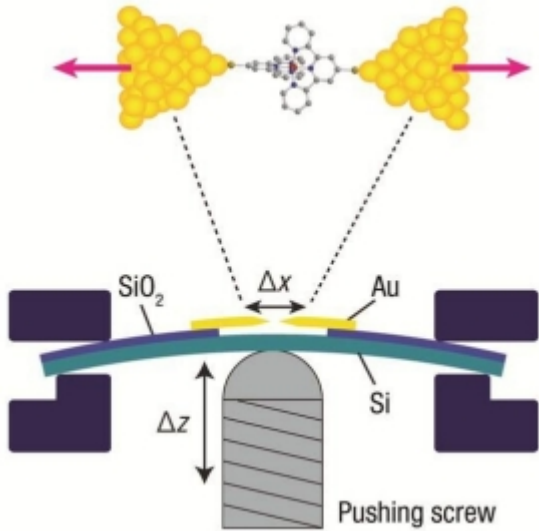


UV-VIS-NIR spectrometer

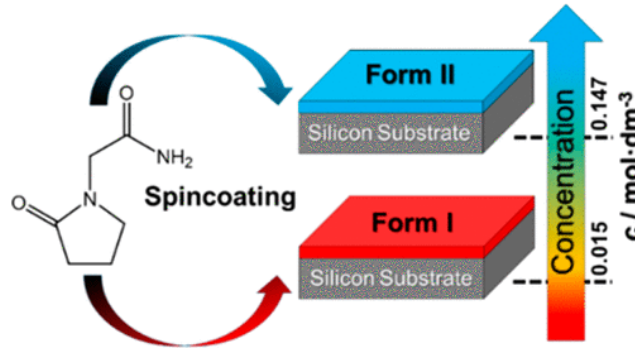




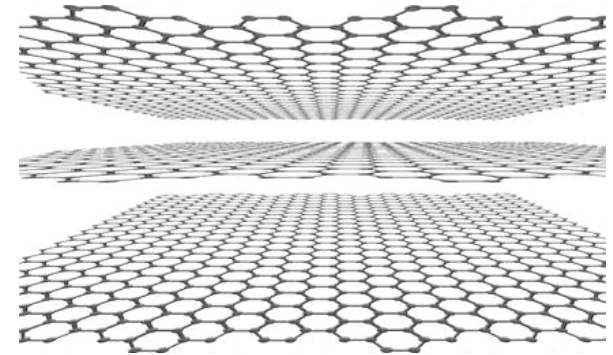
# Research Topics: Physics



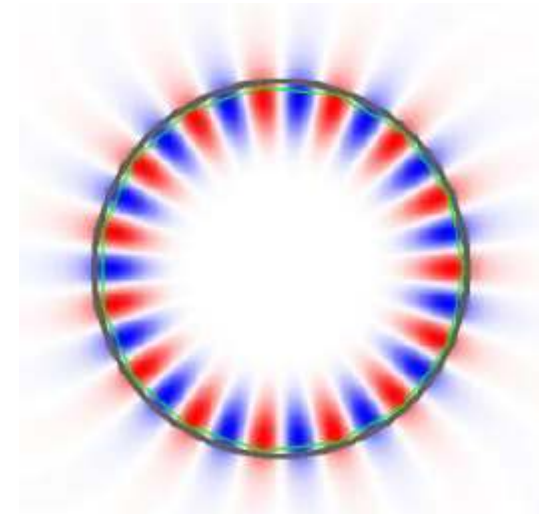
Nanoscale mechanical break junctions



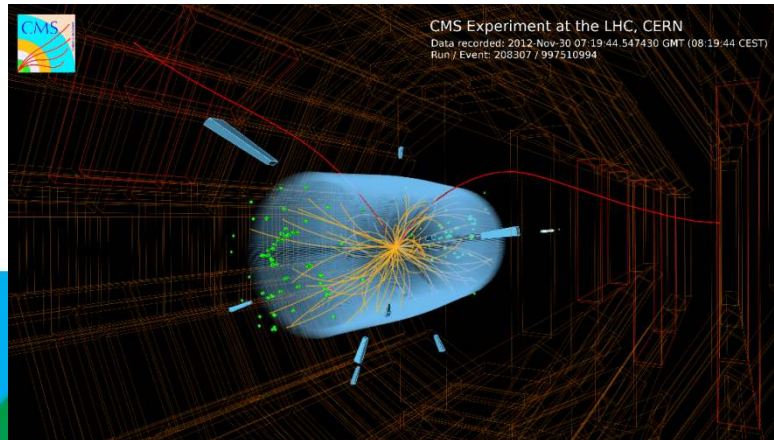
Organic electronics



Graphene and other 2D materials  
© graphenomenon.com

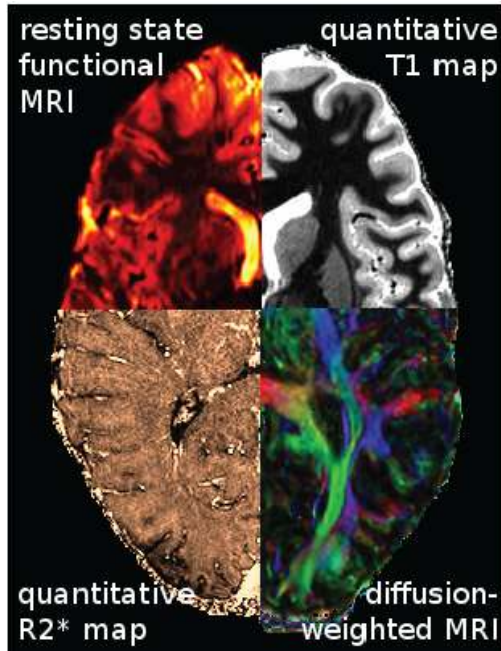


Whispering Gallery modes in  
optical micro-resonators  
© M. Gomilsek

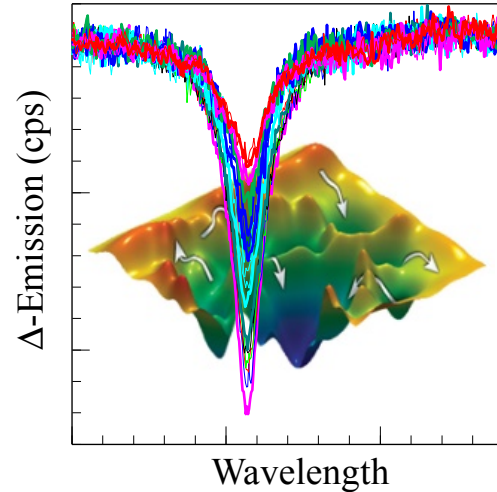


Particle Physics – CMS experiment © CERN

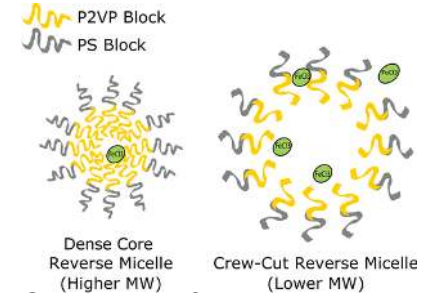
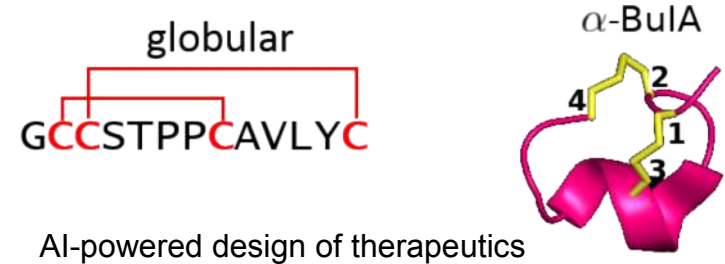
# Research Topics: Biophysics and Medical Physics



Brain imaging

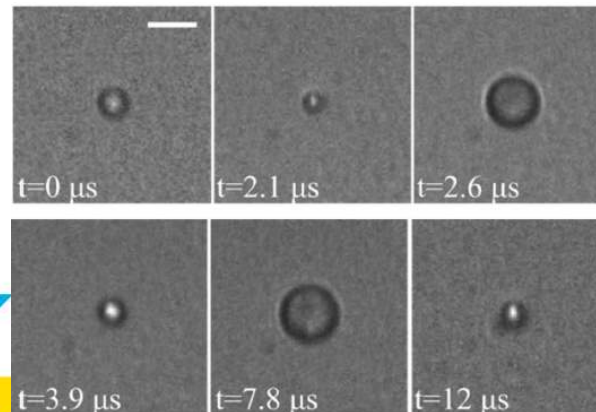


Protein energy landscapes

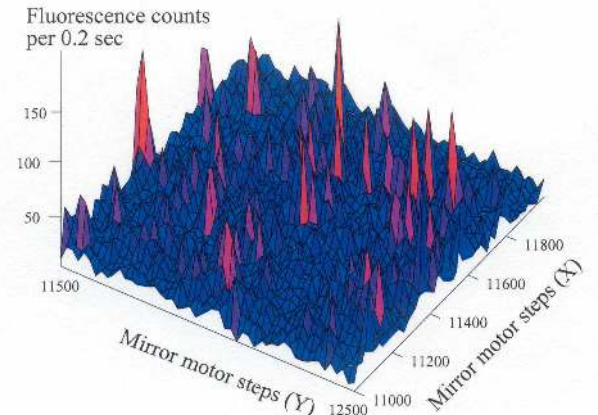


Synthesis of nanomaterials

(Arbi et al. nano select 2(12) 2419 2021)



Ultrasound-driven microbubbles  
(Helfield et al. PNAS 113(36) 2016)



Imaging and spectroscopy of single (bio)molecules and complexes

**Questions?**





# Getting started (academics)

- (1) Read the **GPD letter** sent to you (or talk with the GPD)
- (2) Read the [Graduate Calendar](#) for your program
- (3) Read the [Departmental Graduate Policy](#)
- (4) **Discuss openly and regularly with your supervisor !**

## Become Familiar with the Important Academic Dates:

- **September 18: Add/Drop deadline (DNE)**  
If you want to take a class, you must enroll before this date!  
If you drop a class after this date, it will appear as a DISC on your transcript and you will not be refunded.
- **December 5: Class withdrawal deadline (DISC)**  
If you are enrolled in a class beyond this date, you will be **unable to drop** the class for a DISC.

**Reminder:** If you have any conditions attached to your admission, you must complete them by the given time.

# Academic Integrity

Concordia University places the principle of academic integrity, that is, **honesty, responsibility and fairness in all aspects of academic life**, as one of its highest values.

## [Academic Code of Conduct](#)

The most common offence under the Academic Code of Conduct is plagiarism.

- if you complete a homework with someone else, write it down;
- if you use references, mention it in your work;
- be honest on exams,
- **respect the intellectual property (IP) of faculty and fellow students.**



## Graduate Program: Regular Courses

- Please discuss the choice of your courses with your supervisor(s), and read carefully the information letter from the GPD.
- Please register for Winter 2023 courses right away if you are taking a course and have not registered yet. [Registration instructions](#)
- Please register for Fall 2024/Winter 2025 courses as soon as you have decided on your courses.
- Three chosen 3-credit courses required while being in either the MSc or PhD program.
- At least one of the three courses has to be in our department.
- To get authorization for taking courses at other universities please use AEHE: <https://www.bci-qc.ca/en/students/aehe/>
- At most one extra “bonus” / free course (otherwise you will have to pay extra tuition).



# Annual Supervisory Committee Meetings

**Form your supervisory committee:** As a new grad student, one of your first tasks (first semester) is to select with your supervisor(s) the other members of your supervisory committee. The instructions are on the form called “Supervisory Committee Form”, on our [webpage](#).

## **Annual meeting with your supervisory committee:**

- After each 12 month period
- This is a meeting aimed supporting your career development, and sharing scientific ideas about your research. You have to fill a “Progress Report Form” (found on our [webpage](#)) and send it to your committee one week before the meeting, and prepare a short oral presentation about your work. *Note that the comprehensive exam PHYS 870 also counts as a supervisory meeting (the Progress Report form must be filled for this to count).*

## Graduate Program: Seminar courses

### ***Research Seminar (improving physics/biophysics writing & speaking skills)***

- Equivalent to  $\frac{1}{2}$  (or less) of a course in terms of workload
- Offered in Fall or Winter, but not in Summer.

### ***PHYS 760 – MSc students***

You should do this in a semester ahead of your graduation, but only after completing your three regular graduate courses.

### ***PHYS 862 - PhD students***

You should do this in a semester ahead of your graduation, but only after completing your three regular graduate courses and your comprehensive examination.

### ***Pedagogical Seminar: PHYS 861 (only for PhD students)***

You should register for this course in the second or third year of your PhD. It involves attending at least 80% of the weekly Department colloquia, and filling in a brief form about each colloquium talk. This is a Fall/Winter (1/3) course, and you need to register before the DNE deadline of the Fall semester you are going to take it. This course **cannot** be done in the summer, in a single semester, or starting in the Winter.

# Graduate Program: Comprehensive Exam

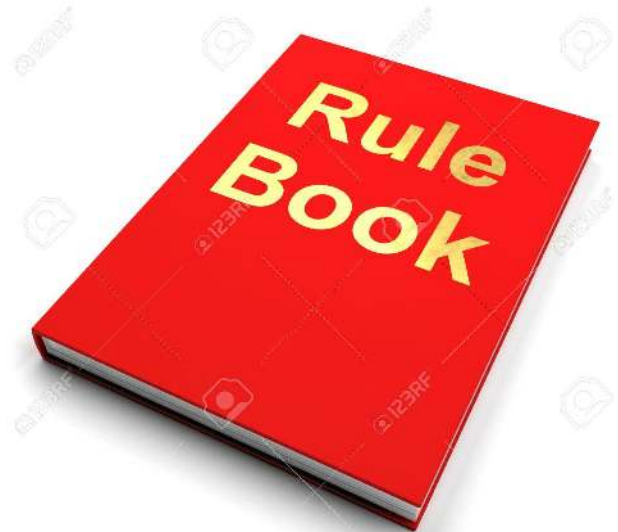
For PhD students only

***PHYS 870:*** After completing your regular courses, and getting a solid start with your research project (typically after 1.5 to at most 2.5 years after entry the program), you need to schedule your comprehensive examination with your supervisory committee. More details about this exam can be found in our [Physics Graduate Policy](#).

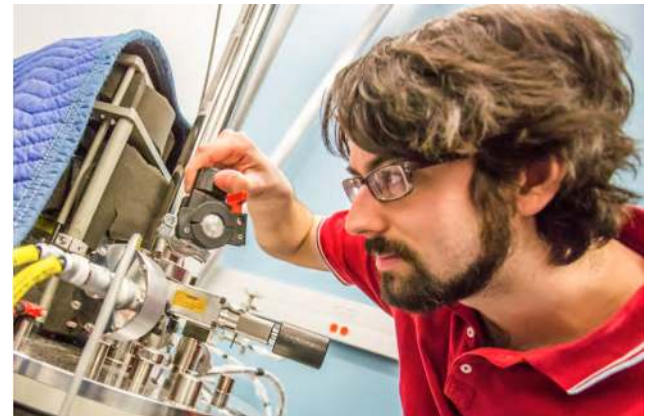


## Key Program Links

- [Physics Graduate Program Policies](#)
- [Graduate Calendar \(general\)](#)
- [Graduate Calendar \(Physics PhD\)](#)
- [Graduate Calendar \(Physics MSc\)](#)
- [School of Graduate Studies](#)
- [New Graduate Student Resources](#)



- Your primary contact is your supervisor.
- Seek feedback from your committee members and, when relevant from your group peers, other faculty members, and other students.
- TA contracts: please contact the professor teaching the course or the UPC. Attend the new TA orientation for more info.



# Getting started (administrative)

**Talk to the GPA as soon as possible once you are settled.**

The GPA will help you with issues such as:

- Office space and key requests
- Setting up a Netname (used to access Concordia IT services)
- Getting a code for the photocopier
- Where to get a Concordia ID card (so you can use the shuttle)

If you are an international student, you should also:

- Get your Social Insurance Number
- Submit a copy of your study permit to Human Resources

**The GPA is a great resource for information and tips!**

Note: If you change your address or email address, please update your information in both your student **and** employee profiles. In addition, please let the GPA know if you change your email address.





## Concordia Your student account and payroll

You have a **student account** with Concordia.

- The office dealing with this account is **Student Accounts**.
- Tuition is billed to this account, and you can pay it there.
- Some awards go directly to your student account, and will result in a reduced tuition bill.
- If, after tuition is paid, there are funds left in the student account, you can request that those are given to you.

The **Payroll Office** is involved with getting you your money.

- Once you open a bank account, you should register for direct deposit (you will need a voided check from your bank).  
Otherwise you will receive paper checks.



## Concordia Tuition and fees

- As a graduate student in Concordia, you have to pay “**Tuition Fees**” and “**Other Fees**”.
- Make sure to pay the “Other Fees” in full to avoid paying interest.
- Contact the **Student Accounts Office** if you do not have enough funds to pay the “Tuition Fees” in a single payment. They can arrange for a payment plan as you get paid.





UNIVERSITÉ  
**Concordia**  
UNIVERSITY

## Funding information

There are several different sources of funding.  
(You may receive funds from more than one)

- External awards
- Internal awards
- Research bursaries
- TA / RA contracts

Most students receive a combination of funds from internal awards, research bursaries, and TA contracts.

**If in doubt, ask us about your sources of funding!**







## Funding information

### **External awards:**

- Different awards may have different timing (monthly, bi-weekly, lump-sum, etc.)
- Generally paid directly to you (will depend on the awarding entity).

### **Internal awards:**

- Paid at the beginning of each term, 5 days after the DNE deadline.
- If less than \$3,000 they are paid in a lump-sum the first term.
- If more than \$3,000, each term you receive 1/3 of the award.
- Paid directly to your student account.





## Funding information

### Research bursaries:

- These are a stipend for students in an academic program (not remuneration for work), and come from your supervisor research funds.
- Paid biweekly through Payroll (check or direct deposit).
- Your supervisor needs to fill in a form that needs to be signed by them and you.
- The processing of the signed form can take several weeks, so you need to plan ahead (together with your supervisor) to avoid interruptions in your payments
- These might be excluded from your total taxable income (not accounting advice!)

## **RA/TA Contracts:**

- Remuneration for work done (Teaching Assistant or Research Assistant)
- Paid biweekly through Payroll (check or direct deposit).
- There is a contract that needs to be created and signed.
- The processing of a contract can take several weeks, so you should get your part signed quickly.
- Income from a contract is taxable, and has benefits associated.
- **NOTE:** If you do not have a TA or RA contract, reimbursement for expenses is likely to be complicated!





## International Students

For the latest information (there are many different situations) please visit:

[International Students Office \(ISO\)](#)

**Please talk to your supervisor one-on-one for guidance!**

Marie-Anne (GPA) and Pablo (GPD) are also available to help you.



## International Students

**Travel:** All students, new and returning, need a proof of registration in the form of an unofficial transcript ([Student Hub](#))

**Arrival:** September 18<sup>th</sup> (DNE) is the last day to arrive in Montreal for new students, so you can register for Fall 2023. Please monitor your local [visa application centre](#) and Immigration, Refugees and Citizenship Canada (IRCC) [study permit](#) updates.

Remember to apply to renew your study permit **well in advance** of its expiration date.



## Useful Resources and Links

### ***Administrative:***

- [International Students Office \(ISO\)](#)
- [Student Accounts](#)
- [Office of Rights and Responsibilities](#)
- [Birks Student Service Centre](#)

### ***Library and Bookstore:***

- [Concordia Library](#)
- [Concordia Book Stop \(Bookstore\)](#)

### ***Physical and mental health:***

- [Health Services](#)
- [Counselling and Psychological Services](#)
- [Recreation and Athletics](#)

### ***Student association:***

- [Physics Graduate Student Association](#)
- [Graduate Student Association](#)



- [Access Centre for Students with Disabilities](#)
- [Campus Security and Emergency Services](#)
- [Career and Planning Services \(CAPS\)](#)
- [Concordia Student Union Off-Campus Housing \(data bank\)](#)
- [French courses, etc: Réussir en français \(Département d'études françaises\)](#)
- [Graduate Awards Office](#)
- [GradProSkills \(useful professional development workshops\)](#)
- [LIVE Centre \(volunteering\)](#)
- [Multi-faith and Spirituality Centre](#)
- [Welcome Crew \(help for new students\)](#)
- [Ombuds Office](#)
- [Recreation and Athletics](#)
- [Services for New Students](#)
- [Sexual Assault Resource Centre](#)
- [Student Advocacy Office](#)
- [Student Learning Services](#)
- [TRAC \(TA/RA labour union, for the purposes of work conditions, salaries, etc\)](#)
- [4TH SPACE](#)



# GradProSkills – Free Workshops for Graduate Students



## SUCCESS IN GRADUATE SCHOOL

### Craft a strong research scholarship application

- [GPLL466 - Funding Opportunities for Graduate Students in Thesis-based Programs](#)
- [GPLL436 - Crafting a Competitive Doctoral Scholarship Application for Social Science & Humanities](#)
- [GPLL434 - Crafting a Competitive Doctoral Scholarship Application for Natural Sciences, Engineering & Health](#)
- [GPLL430 - Crafting a Competitive Master's Scholarship Application for Natural Sciences, Engineering, & Health](#)
- [GPLL432 - Crafting a Competitive Master's Scholarship Application for Social Science & Humanities](#)



## DIGITAL

### Digital skills for today's grad student

- [GPTK774 - Best Practices for Promoting Interaction & Participation on Zoom](#)
- [GPDI513 - Get Started Coding with Python](#)
- [GPDI515 - Beginner's Guide to the R Programming Language](#)
- [GPLL243 - Using Zotero for Grads](#)



## COMMUNICATION

### Communicate with confidence

- [GPSC482 - English Grammar 1: Subject-verb agreement, dangling modifiers, articles, and voice](#)
- [GPLD157 - Virtual Teams and Tools](#)
- [GPSC415 - Professional and Effective Email Writing](#)
- [GPLT319 - Speaking with Skill: English pronunciation and conversation](#)



## TEACHING

### Master pedagogical strategies for successful teaching

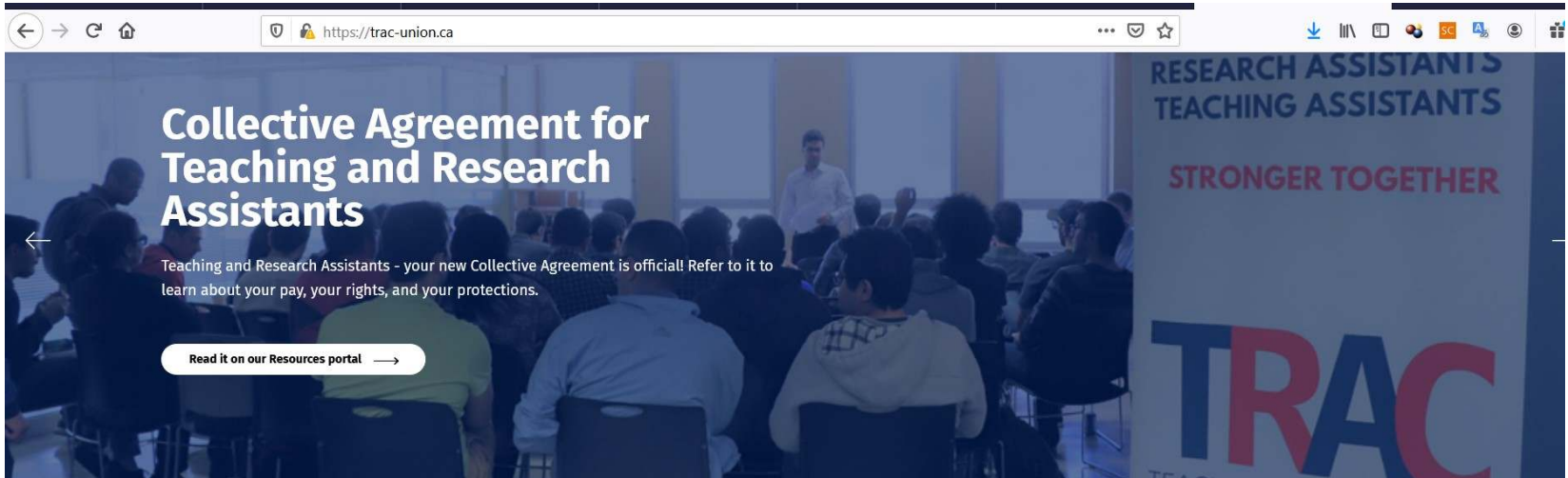
- [GPTK722 - Teaching Assistant Orientation](#)
- [GPTK758 - What Can Moodle Do? \(Online Webinar\)](#)
- [GPTK703 - Graduate Seminar in University Teaching \(All Disciplines\)](#)
- [GPTK756 - UDL 101: Universal Design for Learning for Inclusive Teaching](#)



Have a great Fall semester!

Questions?





**Sign-up for TRAC news here:**

[https://docs.google.com/forms/d/e/1FAIpQLSdKHolgtCOF0EYzHG9QL1\\_wufWY\\_NuK9H-mwlfym3SiUepVVQ/viewform](https://docs.google.com/forms/d/e/1FAIpQLSdKHolgtCOF0EYzHG9QL1_wufWY_NuK9H-mwlfym3SiUepVVQ/viewform)

