# GRADUATE STUDENT HANDBOOK

2023-2024

# GRADUATE PROGRAM IN PHYSICS AND ASTRONOMY



#### WELCOME MESSAGE

Welcome to the Graduate Program in Physics and Astronomy at York University. This handbook provides most of the information needed by new graduate students, so that you can rapidly orient yourself to the program environment. It will also be useful as a reference document as you pursue your graduate studies here.

We would appreciate your comments about the usefulness of this booklet and how it can be improved in the future. We would also like to thank everyone who has contributed to this handbook so far.

Best wishes for a productive and enjoyable journey through your studies here!

Adam Muzzin Cristalina Del Biondo

Graduate Program Director (GPD) Graduate Program Assistant (GPA)

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#### **RESEARCH AREAS AND FACILITIES**

The Graduate Program in Physics and Astronomy focuses on a wide range of study and research in the following areas:

- Astronomy & Astrophysics
- Atomic, Molecular & Optical Physics
- Biological Physics
- Chemical & Condensed Matter Physics
- Earth, Atmospheric, Space & Engineering (Planetary Physics)
- High Energy & Particle Physics

The research is carried out in modern laboratory buildings. The Petrie Science and Engineering Building (PSE) houses the Department of Physics and Astronomy. It is well equipped with research support facilities, such as stores (PSE 002), a machine shop (PSE 006), drafting and photography facilities, an electronics shop (PSE 018A), a glassblowing shop (PSE 016) and, of course, numerous powerful computing facilities. The Steacie Science Library is located just east of PSE.

## WHOM TO SEE ABOUT WHAT

Question About?	Name	Office	Telephone/Email
Emergencies			911
(Ambulance, Fire,			
Police)			
On-campus	Security Control		33333 or 416-736-5333
Security, URGENT	Centre		
On-campus	Security Control		58000 or 416-650-8000
Security	Centre		
Student Security	York goSAFE		416-736-5454
Escort Service	Program		
Network	Jamshid	322	30758/fscits@yorku.ca
connection,	Bahramian,	Lumbers	
computer advice			
and accounts			
General	Cristalina del	125 PSE	20604/delbiond@yorku.ca
administration,	Biondo	_	
services, space,	Janaki De Camillis	128 PSE	55249/janakiw@yorku.ca
furniture			
Expense Reports,	Cristalina del	125 PSE	20604/delbiond@yorku.ca
Purchase	Biondo	400 DOE	55040/:
Requisitions	Janaki De Camillis	128 PSE	55249/ janakiw@yorku.ca
Health and Safety	Brad Sheeller	317	647-999-9806/
17 / . (("	0 2 ( ) 2 ( ) 2	Lumbers	sheeller@yorku.ca
Keys (office and	Cristalina del	125 PSE	20604/delbiond@yorku.ca
building),	Biondo Janaki De Camillis	128 PSE	FF240 /ignolding@yorku.co
Department photocopier	Janaki De Camillis	120 PSE	55249/janakiw@yorku.ca
Teaching	Wayne Gordon	128 PSE	437-522-2768-
Assistantships	VVayrie Gordon	120 1 SL	wgordon@yorku.ca
TA payments	Cristalina del	125 PSE	20604/delbiond@yorku.ca
TA payments	Biondo	1231 OL	2000-/delblorid & yorkd.ca
Stores	Sherryl Dean	002 PSE	55244/scistore@yorku.ca
0.0100	Amal Youssef	002102	002 i i/00iotoro @ yorka.oa
Room bookings,	Janaki De Camillis	128 PSE	55249/ janakiw@yorku.ca
Departmental	Cristalina del		
projector	Biondo	125 PSE	20604/delbiond@yorku.ca
Graduate Program	Adam Muzzin	322 PSE	33747/phasgpd@yorku.ca

#### **GENERAL INFORMATION**

The information in this handbook is supplementary to that found on the <u>Faculty of Graduate Studies (FGS) website</u> and the <u>Program website</u>. New students should familiarize themselves with the FGS policies and procedures, which can be found <u>here</u>. In particular, please review the <u>Code of Student Rights and Responsibilities</u> and the <u>Senate Academic Honesty policy</u> regarding cheating, plagiarism, impersonation, improper research and publication practices, etc.

Students are advised to follow registration dates and Program and Faculty deadlines. In addition, please inform the Graduate Program Assistant of any changes in status or study plans in order to ensure that the correct procedures are followed to avoid administrative havoc in the future.

Students should frequently check their YorkU email for important announcements and deadlines, scholarship notices, bursary applications, etc. If applicable, the mailboxes located outside 211 Petrie Science Building (PSE) should also be regularly checked for notices and other program information.

#### **2023 – 2024 IMPORTANT DATES**

Please refer to the following website for information on all the important dates for the Faculty of Graduate Studies:

http://gradstudies.yorku.ca/current-students/student-status/important-dates/.

Important Departmental dates will be sent to you by email from the Graduate Program Office.

#### **ORIENTATION**

FGS Grad Social for new graduate students, August 31, 2023 from 12:00-1:30 PM: <a href="https://www.yorku.ca/gradstudies/grad-orientation/">https://www.yorku.ca/gradstudies/grad-orientation/</a>

An orientation session for Physics and Astronomy students will be held Thursday, August 31, 2023 from 10:00-12:00. If you missed it, the slides can be obtained upon request.

Support for new TA's is offered by the Teaching Commons: <a href="https://www.yorku.ca/teachingcommons/graduate-students/">https://www.yorku.ca/teachingcommons/graduate-students/</a> In particular, you may find the online orientation modules useful: <a href="https://www.yorku.ca/teachingcommons/ta-orientation/">https://www.yorku.ca/teachingcommons/ta-orientation/</a>

The following online courses are mandatory before starting your TA duties:

Electrical Safety Awareness

https://moodle.yorku.ca/moodle/course/view.php?id=66126

WHMIS I:

https://moodle.yorku.ca/moodle/course/view.php?id=113973

Laser Safety (held in-class)

#### REGISTRATION PROCEDURES AND DEADLINES

All graduate students must register for the fall, winter and summer terms. All students require permission to register in certain courses, otherwise they can register for courses they need to be registered in.

#### **REGISTRATION DEADLINES:**

http://gradstudies.yorku.ca/current-students/student-status/important-dates/

All students expecting to receive an assistantship must register Full-Time by the deadlines. Students cannot get paid until registration has been completed.

Graduate students are required to register in each term until the completion of their degrees as either a full-time or a part-time student. Please note that dropping courses does not automatically indicate that a student has withdrawn from the program. In order to withdraw from the Faculty of Graduate Studies, students must submit a letter to the Graduate Program Office. The effective date of withdrawal is the date the letter is received.

Students should consult with their supervisor before selecting and enrolling in their courses. M.Sc. coursework students should meet with the Graduate Program Director (GPD) for advising. Students wishing to drop a course require permission from their supervisor (GPD for coursework students).

Students may seek approval to take up to one full graduate course outside the Program or to take a Reading course. Requests to take a course outside York University can only be granted in very special cases. More information about these possibilities can be obtained from the Graduate Program Office (125 PSE).

#### WHAT'S NEXT?

**York Identity Cards:** YU-cards can be obtained from the YU-card Office in 200 William Small Centre. For more information, visit <a href="http://www.yorku.ca/yucard">http://www.yorku.ca/yucard</a>.

**Email Policy:** To activate your YorkU email account, go to: <a href="http://myonlineservices.students.yorku.ca">http://myonlineservices.students.yorku.ca</a>

#### **FORMS**

Some of the forms you may need to submit at various stages of your graduate career can be found at

https://www.yorku.ca/science/physics/graduate/guidelines-policies-and-forms/

and

https://www.yorku.ca/gradstudies/students/current-students/

#### **FEES**

Graduate fees are calculated according to a student's program and full-time or part-time enrolment status. Fees are not calculated on a per-course basis.

Fees are based on three terms of full-time study from September through August. For more details and information about supplementary and additional charges, please visit <a href="http://sfs.yorku.ca/fees/courses/index.php">http://sfs.yorku.ca/fees/courses/index.php</a>. Information about the StudentChoice Initiative and the opt-out process for supplementary fees is given here.

Fees Paid by an Employer, Government or an External Agency (Third Party Billing): If your tuition fees are being paid directly to the University by a third party (e.g., employer, government, Embassy, etc.) you must submit your sponsorship letter to the Office of Student Financial Services (for contact information, visit <a href="http://sfs.yorku.ca">http://sfs.yorku.ca</a>) immediately following registration. Please note that you are still responsible for all charges on your student account, and late charges or other sanctions will apply if the account is not settled promptly. Your account will not be credited until payment has been received.

Graduate Students who have an outstanding financial debt to the University of \$1,000 or greater will be blocked from registering. If this is the case, students are strongly encouraged to pay down their debts or speak with someone in the Student Affairs Office of the Faculty of Graduate Studies (230 York Lanes) before the beginning of the term PRIOR TO the registration deadline.

#### **REFUND TABLES**

Students are responsible for tuition fees in all terms until completion of all degree requirements, including submission of the final thesis or dissertation copies to the Faculty of Graduate Studies. Graduate fees are calculated according to a student's program and full-time or part-time enrolment status. Fees are not calculated on a percourse basis. A student who withdraws from FGS may receive a partial fee refund. Fee refunds/credit calculations are based on complete withdrawal from a term, not withdrawal from an individual course. In order to withdraw from the Faculty of Graduate Studies, students must submit a letter to the Graduate Program Office. The effective date of withdrawal is the date the letter is received. Withdrawal dates and refund amounts can be found at the following link: http://sfs.yorku.ca/refunds/tables/.

Please note that students must first satisfy the requirements of paying for the minimum number of terms for their particular program of study before any refunds will apply. M.Sc. students must pay fees for a minimum of 3 terms of full-time study (or 6 terms of part-time study). Doctoral students must pay fees for a minimum of the equivalent of six terms of full-time registration (or 12 terms of part-time registration).

#### **GRADUATE INCOME INFORMATION**

Please visit

<u>http://gradstudies.yorku.ca/graduate-funding-modeltolearn</u> more about graduate funding at York.

Full-time Physics and Astronomy (PHAS) students may receive a combination of:

- York Masters/Doctoral Fellowships: This component was introduced across the board in 2016 to offset tuition fees.
- Teaching Assistantships: PHAS graduate students normally engage in assigned teaching-related work (laboratory demonstration, marking, invigilation) up to one full TA, subject to availability. At York University, one full TA is 270 hours. The normal annual TA in Physics in Astronomy is 202.5 hours of teaching-related duties (75% of a full TA). Teaching Assistants are represented by CUPE 3903. Please familiarise yourself with the CUPE 3903 Collective Agreement.
- Research Assistantships: PHAS graduate students in research degree programs (i.e., M.Sc. project, M.Sc. thesis or Ph.D.) typically receive financial support from their supervisors' research grants, the amount of which is subject to individual discussion between the student and supervisor. Other than

participation in research activities, there is no formal duty associated with this support.

- International Tuition Fee Scholarships: The International Tuition Offset (ITO) is provided to offset international tuition fees.
- York University Graduate Scholarship (YGS): The Graduate Program in Physics and Astronomy offers York Graduate Scholarships to incoming students. This award is usually only available to applicants with an A average and is not renewable.

External Scholarships: York University students may receive national scholarships from the Natural Sciences and Engineering Council of Canada (NSERC) valued at \$17,500-\$35,000 a year, or provincial scholarships, such as the Ontario Graduate Scholarship (OGS) and Queen Elizabeth II (QEII) scholarship, valued at \$15,000. These scholarships are awarded on a competitive basis. Students who satisfy the eligibility requirements are encouraged to apply for these scholarships, which are described in more detail below. For complete information on deadlines, procedures and eligibility requirements.

Please visit: https://www.yorku.ca/gradstudies/students/current-students/awards-and-scholarships/

#### **NSERC Scholarships**

Natural Sciences and Engineering Research Council (NSERC) Graduate Scholarships are intended to provide financial support to excellent students who are working towards a Masters or Doctoral program in the natural sciences or engineering.

Applications are available online: <a href="http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/index eng.asp">http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/index eng.asp</a>. Deadlines: Around Oct 7, 2023 for PhD (transcripts are due on Oct 1) and Dec 1, 2023 for MSc students.

Eligibility to apply: Applicants must be Canadian citizens or permanent residents of Canada; intend to pursue in the following year full-time graduate studies and research at the Masters or Doctoral level in an eligible program in one of the areas of the natural sciences and engineering supported by NSERC; and have obtained a first-class average (a grade of "A-") in each of the last two completed years of study, regardless of the number of credits completed.

#### OGS

The Ontario Graduate Scholarship (OGS) program is designed to encourage excellence in studies at the Masters and Doctoral levels. An OGS is awarded for one academic year, which may consist of three consecutive terms. One-term awards are not granted.

OGS deadlines are synchronised with NSERC deadlines:

M.Sc. level: Around December 1, 2023

Ph.D. level: Around October 7, 2023 (transcript are due earlier)

More information and the application forms are available at:

https://www.yorku.ca/gradstudies/awards/ontario-graduate-scholarships-ogs-and-qeii-graduate-scholarships-in-science-and-technology-qeiigsst/

Please contact the Graduate Program Assistant for more information.

#### Other sources of funding that may be available:

- The Fieldwork Cost Fund defrays the costs of carrying out field-work.
- The CUPE 3903 Research Cost Fund defrays the out-of-pocket costs of carrying out research, for example, travel to sources of research, payment of subjects, supplies, services, photocopying, etc.
- The Graduate Development Fund defrays travel costs to present results at conferences.

#### Please visit

https://www.yorku.ca/gradstudies/students/current-students/awards-and-scholarships/or contact the Graduate Program Assistant for more information.

#### **Benefits**

- Teaching Assistants (members of CUPE 3903 unit 1) enjoy a number of health-related benefits (dental, prescription drug, and vision care).
  - York Benefits office expects all new TAs to enrol in the first month; otherwise your benefits will not be active. Benefit information can be found on the CUPE websites.
- International students receive a bursary to cover the cost of the university health insurance plan (UHIP). Information about UHIP can be found at: http://yorkinternational.yorku.ca/uhip/

### **GRADUATE COURSES**

The PHYS graduate courses offered in 2023-2024 are<sup>1</sup>:

COURSE NO.	TITLE	PROFESSOR	DAYS	TIMES	ROOM	CAT.
PHYS 5000 3.0 FALL	Quantum Mechanics 1	T. Kirchner	M-W-F	10:30	LUM 306	NO. T16W01
PHYS 5000 3.0 FALL PHYS 5020 3.0 WINTER		E. Hessels	M-W-F	12:30	MC 216; R	S29A01
PH 13 3020 3.0 WINTER	Electromagnetism	E. Hessels	IVI-VV-F	12.50	S156; BSB	323A01
					207	
PHYS 5040 3.0 WINTER	Elementary Particle Physics	W. Taylor	M-W-F	10:30	SC 216; VC	B53A01
71113 3040 3.0 WINTER	Liementary Farticle Fillysics	vv. rayioi	101-00-1	10.30	103; HNE 036	DOSAGI
PHYS 5050 3.0 WINTER	Atomic and Molecular Structure	T. Kirchner	M-W-F	13:30	HNE 105; SC	D29V01
11113 3030 3.0 WHYTER	Atomic and Morecalar Structure	1. Kirchilei		15.50	211; BC 214	
PHYS 5061 3.0 FALL	Experimental Techniques in Laser	M. George	F	14:30	ACE 006	M63X01
11113 3001 3.0 17122	Physics	Wil George		14.50	7102 000	
PHYS 5062 3.0 WINTER	Atom Trapping	A. Kumarakrishnan	М	15:30	PSE 120	G10R01
PHYS 5070A 3.0 FALL	Advanced Numerical Method	D. Liang	T-R	14:30	ACE 005	N85T01
PHYS 5070B 3.0 WINTER	Numerical Sol. To PDEs	M. Haslam	M-W	13:00	LSB 107; MC	U38K01
					211	
PHYS 5090 3.0 WINTER	Stars and Nebulae	A. Muzzin	M-W-F	14:30	HNE 036	T76G01
PHYS 5100 3.0 WINTER	Solid State Physics	W. Wijngaarden	M-W-F	11:30	ACW 204	N23P01
PHYS 5140 3.0 FALL	Particle Physics	D. Harris	M-W	9:00	LUM 306	E07E01
PHYS 5170 3.0 WINTER	Spectral Imaging Of The	TBD (Integrated	Т	14:00	BC 228	V55M01
	Atmosphere	with ESSE 5160)				
PHYS 5180 3.0 WINTER	Quantum Field Theory I	R. Lewis	T-R	10:00	R S536; R	G02E01
					S501	
PHYS 5230 3.0 FALL	General Relativity & Cosmology	M. Johnson	M-W	14:30	HNE 230	M26D01
PHYS 5290 3.0 FALL	Extragalactic Astronomy	R. Kannan	M-W-F	12:30	FC 105; BSB	F73M01
					207; R S156	
PHYS 5390 3.0	Astronomical Techniques	E. Hyde	R	14:30	FC 105	U83E01
FALL/WINTER						
PHYS 5400 3.0 FALL	Physics Research	INDEPENDENT	n/a	n/a	n/a	F23S01
		READING FALL				
PHYS 5400 3.0 WINTER	Physics Research	INDEPENDENT	n/a	n/a	n/a	V70D01
		READING WINTER				
PHYS 5490 3.0 FALL	Astronomical Research	INDEPENDENT	n/a	n/a	n/a	U54M01
		READING FALL				
PHYS 5490 3.0 WINTER	Astronomical Research	INDEPENDENT	n/a	n/a	n/a	Z01V01
		READING WINTER				_
PHYS 5590 3.0 WINTER	Observational and Theoretical	R. Kannan	T-R	13:00	R S174	Y76J01
	Cosmology					_
PHYS 5802 3.0 WINTER	Cellular Electrodynamics	C. Bergevin	M-W-F	13:30	R S501; SC	U11R01
					223; SC 203	

<sup>1</sup> This list is subject to minor changes during the Fall term.

PHYS 6001A 3.0 WINTER	M.Sc. Research Evaluation	MSC 1	n/a	n/a	n/a	H48H01
PHYS 6001B 3.0 WINTER	M.Sc. Research Evaluation	MSC 2	n/a	n/a	n/a	A95Q01
PHYS 6001C 3.0 WINTER	M.Sc. Research Evaluation	MSC 3	n/a	n/a	n/a	X06Z01
PHYS 6060 3.0 FALL	Advanced Topics in Theoretical Physics: Machine Learning	J. Zylberberg	M-W-F	11:30	LUM 306	X64V01
PHYS 6140 3.0 WINTER	Advanced Topics: Statistics in Python	B. Radics	W-F	15:30	LUM 306	A95N01
PHYS 7001A 3.0 WINTER	Ph.D. Research Evaluation	PhD 1	n/a	n/a	n/a	R42B01
PHYS 7001B 3.0 WINTER	Ph.D. Research Evaluation	PhD 2	n/a	n/a	n/a	K89K01
PHYS 7001C 3.0 WINTER	Ph.D. Research Evaluation	PhD 3	n/a	n/a	n/a	E36T01
PHYS 7001D 3.0 WINTER	Ph.D. Research Evaluation	PhD 4	n/a	n/a	n/a	Z30N01
PHYS 7001E 3.0 WINTER	Ph.D. Research Evaluation	PhD 5	n/a	n/a	n/a	H77W01
PHYS 7001F 3.0 WINTER	Ph.D. Research Evaluation	PhD 6	n/a	n/a	n/a	B24X01
PHYS 7001G 3.0 WINTER	Ph.D. Research Evaluation	PhD 7	n/a	n/a	n/a	Z59F01

Every year the Department of Physics and Astronomy offers a selection of the graduate courses listed <a href="here">here</a>. Students have the option of taking a course in other science-related graduate programs, subject to approval by the GPD.

#### **COURSE EVALUATIONS**

Course evaluations are conducted by the Graduate Program Office each year for all of the Physics and Astronomy graduate courses offered.

#### **GRADING OF GRADUATE COURSES**

A+	90-100%	Exceptional
Α	85-89%	Excellent
A-	80-84%	High
B+	75-79%	Highly Satisfactory
В	70-74%	Satisfactory
С	60-69%	Conditional
F	0-59%	Failure
I		Incomplete

Note that the grading scheme for graduate courses will change in Fall 2023 to include a B- . Important information about graduate courses can be found <a href="here">here</a>. In particular, please note the FGS Academic Standing regulations:

# Combinations of 'C' Grades Which Require Withdrawal Unless Continued Registration is Recommended and Approved

A student who received in total any of the following combinations of grades for graduate courses may not continue to be registered in the Faculty of Graduate Studies and in a graduate program unless this continuation is recommended by the graduate program director concerned and approved by the Dean:

- (a) two C grades for 6.00 credit courses;
- (b) one C grade for a 6.00 credit course and one C grade for a 3.0 credit (or equivalent) course;
- (c) a total of three C grades for 3.0 credit (or equivalent) courses.

In no cases will grades be averaged.

#### Combination of 'F' and 'C' Grades Which Require Withdrawal

A student will be required to withdraw from a graduate program and registration in the Faculty of Graduate Studies will be terminated if the student receives in total for graduate courses, during enrolment at York University:

- (a) one F grade for a 6.00 credit course or two F grades for 3.0 credit (or equivalent) courses; or
- (b) one F grade for a 3.0 credit (or equivalent) course and one C grade for a 6.00 credit or 3.0 credit (or equivalent) course.

In no case will grades be averaged.

#### **DEGREE REQUIREMENTS**

#### MASTER OF SCIENCE PROGRAM

There are three routes by which a student may achieve an M.Sc. degree in Physics and Astronomy: by research thesis, research project or by coursework. For more information about the requirements for each M.Sc. degree, please visit https://www.yorku.ca/science/physics/graduate/msc-degree/.

#### **DOCTOR OF PHILOSOPHY PROGRAM**

The requirements of the Ph.D. program are described here: https://www.yorku.ca/science/physics/graduate/phd-degree/.

Please also see the attached "Calendar" which nicely summarises the requirements for various degrees in the Physics and Astronomy graduate program.

#### **ANNUAL RESEARCH EVALUATION**

The M.Sc. project, M.Sc. thesis and Ph.D. supervisory committee must meet with the student at least once a year to assess the student's progress in the program, and to provide advice on future work. Please review the <u>Annual Research Evaluation Procedures</u>. The student should print a copy of the <u>Annual Research Evaluation Form</u> and bring it to the committee meeting.

# THE PROCESS FOR APPROVAL OF AN M.SC. THESIS/PH.D. DISSERTATION

Congratulations! You have finished your research and documented it in an M.Sc. thesis/Ph.D. dissertation. This is the timetable to be followed for the completion of your degree requirements. It takes at least six/seven weeks from possession of a "final" copy of the thesis/dissertation to completion of the examination process.

WHEN (M.SC./PH.D.)	WHAT	WHO
Prior to the start of year 4 of PhD, 3-6 months before the oral exam for the MSc.	Submits thesis/dissertation proposal to Graduate Program Office.	Student
Six weeks/seven weeks before the oral exam	Submits a copy of the thesis/dissertation to all Supervisory Committee members for review.	Student
At least six/seven weeks before the oral exam	Forms Examining Committee. Submits information to the Graduate Program Office.	Supervisor
	Schedules the public lecture and oral exam and completes Recommendation for Oral forms.	Graduate Office
Five weeks/six weeks before the oral exam	Signs off on thesis/dissertation as Examinable.	Supervisory Committee
Four weeks/five weeks before the oral exam	Receives edited thesis/dissertation from Supervisory Committee.	Student
At least 20 business days before the oral exam	Submits a copy of corrected thesis/dissertation to all Examining Committee members for review.	Student/

		Graduate
		Office <sup>2</sup>
	Completes Oral Exam forms.	Student
Final oral exam	Presents public lecture and oral defence.	Student
Anytime after oral exam	Submits corrected copy of	Student
	thesis/dissertation with required forms to	
	FGS.	

Project M.Sc. students have to submit a project report to their supervisory committee at least two weeks prior to the intended completion date. A hard copy of the report and the completed project M.Sc. form must be submitted to the Graduate Office by the intended completion date.

#### **GRADUATE RESOURCES**

#### PHYSICS AND ASTRONOMY COLLOQUIUM

On most Tuesdays during the academic year at 2:30 pm, the Physics and Astronomy Colloquium is held at 317 PSE. These colloquia offer an outstanding roster of speakers who provide an expert view of research advances in the various fields of Physics and Astronomy. The lecturers are requested to aim their presentation to Physics and Astronomy graduate students and senior undergraduate students. **Regular attendance at these colloquia is highly recommended as part of all students' education**. Coffee and cookies are served in 317A PSE before or after the colloquium. If, in the course of your activities, you hear someone and think "they would be really good as a colloquium speaker", then let the Colloquium Chair know so they can be invited.

#### **LIBRARIES**

There are five main libraries at York: Steacie Science and Engineering Library, Scott Library (social sciences and humanities), Peter F. Broffman, Leslie Frost Library and Law Library. The Steacie Science Library subscribes to significant physics, astronomy, biophysics, materials science, engineering and chemical physics journals and provides electronic access to most of these. It also holds extensive collections of back issues (and books!). Information about library services and training can be found on the library website. Graduate students may apply for extended loan privileges by

<sup>&</sup>lt;sup>2</sup> The student supplies all Examining Committee members with the thesis/dissertation with one **exception**: Since a PhD candidate is not supposed to communicate with the external examiner before the defence, the Graduate Program Office submits the dissertation to the external.

submitting a signed letter from the department that they are currently working on a Masters or Doctoral thesis.

#### WRITING

The Writing Centre offers sessions and workshops in all aspects of writing. Sessions such as individual tutoring, drop-in-tutoring and group workshops are available to all students in the Faculty of Graduate Studies. The Centre is located in Ross South 311. See its <u>website</u> for more information.

#### **ENGLISH AS A SECOND LANGUAGE CENTRE**

The English as a Second Language Open Learning Centre (ESL-OLC) is open to all York students and offers support for ESL students. It is located in Ross South 311. For more information or to register, go to <a href="http://www.yorku.ca/eslolc/">http://www.yorku.ca/eslolc/</a>.

#### **GRADUATE STUDENT ASSOCIATION (GSA)**

http://www.yugsa.ca

**CUPE 3903** 

https://3903.cupe.ca

PHYSICS AND ASTRONOMY GRADUATE EXECUTIVE (PAGE)

http://page.physics.yorku.ca/

## **SUMMARY OF STUDENT SUPPORT SERVICES**

Office or Contact	Primary Service(s)		
Career Centre 202 McLaughlin College 416-736-5351 <a href="mailto:http://careers.yorku.ca">http://careers.yorku.ca</a> <a href="mailto:career@yorku.ca">career@yorku.ca</a>	Career counselling; Learning skills development workshops; Virtual resources; Internships		
Centre for Student Community & Leadership Development (SC&LD) S172 Ross Building 416- 736-5144 http://scld.yorku.ca	Enrich student life by promoting education, awareness and growth; celebrating diversity, encouraging collaboration and developing citizenship.		
Student Counselling and Development N110 Bennett Centre for Students Service 416-736-5297 <a href="http://counselling.students.yorku.ca/">http://counselling.students.yorku.ca/</a>	Personal counsellors, crisis counselling, group development workshops, learning skills training, and support for learning disabilities and psychiatric disabilities		
Centre for Human Rights, Equity & Inclusion 2070 Victor Phillip Dahdaleh Building 416-736-5682 http://rights.info.yorku.ca rights@yorku.ca	Assists individuals and groups to address and resolve allegations of discrimination and harassment as defined by the Ontario Human Rights Code (Code).		
Office of the Ombudsperson 1050 York Research Tower 416-736-2100 x22937 http://ombuds.info.yorku.ca ombuds@yorku.ca	Provides an impartial and confidential service to assist current members of York University who have been unable to resolve their concerns about University authorities' application of York University policies, procedures and/or practices.		
Office of the Registrar Bennett Centre for Student Services 416-736-YORK http://www.registrar.yorku.ca	Enrolment procedures; Sessional dates and refund table; Petitions, permission to take a course at another university, transcripts, and most forms		
Faculty of Graduate Studies 230 York Lanes 416-736-5521 http://gradstudies.yorku.ca	Faculty policies and procedures; General advising, course selection/changes.		
Sexual Assault Survivor's Support Line B449 Student Centre 416-736-2100 x 40345 http://sassl.info.yorku.ca	Provides unbiased and non-judgmental peer support and referrals to survivors of sexual violence, educational workshops and other supports		
Student Financial Services N201 Bennett Centre for Student Services 416-872-YORK http://sfs.yorku.ca	Scholarships, financial problems, OSAP information		
GSA Health Plan 325 Student Centre 416-736-5213 http://www.yugsa.ca	Health plan sponsored by Graduate Student Association		

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#### **Building acronyms:**

BRG Bergeron Centre for Engineering Excellence Building

CB Chemistry Building

DB Dahdaleh Building (formerly TEL)

FS Farquharson Building LAS Lassonde Building LMB Lumbers Building

LS Life Sciences Building

PSE Petrie Science and Engineering Building

R Ross Building