McMaster Physics and Astronomy Graduate Student Wiki

From PAWiki
(Redirected from Main Page)

Welcome to the Department of Physics & Astronomy wiki, maintained by graduate students for graduate students. Slowly, we hope to collect all the information useful to graduate students in our department. See anything wrong or missing? Let us know, and contribute.

A disclaimer: The official source of information is always the Graduate Calendar and the policies of the University and the Department. If there is a difference between that information and something presented here, the official university documents should be taken as correct. If you're not sure or want clarification, talk to the Associate Chair.

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Finances

As a general note, Mara is a useful resource for any financial question you might have. Her door is always open (in ABB-241).

Funding

All graduate students in the department are fully funded through a combination of teaching assistantships, research funding from their supervisor, and scholarship funding. The typical funding package involves students TAing for 260 hours/year (typically 10 hours/week from September through April).

Note: As of September 2018, international PhD students will now pay the same tuition as domestic students. International MSc students will continue to pay the international graduate student tuition, and will be provided with a tuition bursary so that their take-home pay is similar to their domestic counterparts.

Scholarships

- Scholarships- Important info about student tuition and scholarships, or related.

Reimbursements

We would like to emphasize the importance of managing your research expenses carefully. As a graduate student the ratio of your income to potential expenses incurred can be very high. It is of the utmost importance you avoid credit card interest payments, by either being prudent in your expense report filing, or as a last resort by leveraging the low interest rates offered by a student line of credit as compared to a credit card (https://www.thesimpledollar.com/how-to-use-a-line-of-credit/).

There are two options for students to pay for conference/summer school registration fees and flights:

- Use the P&A Dept Diners Mastercard, which can be obtained from Mara. You will need to mark down the date you used the card and detail of the charge in the table within the Diners card envelope.
- Use your own funds, and get reimbursed via direct deposit through the Mosaic system (https://mosaic.mcmaster.ca/psp/prepprd/EMPLOYEE/EMPL/h/?tab=MCM_TAB_WELCOME).

In either scenario, you must give copies of all your receipts and boarding passes to Mara or another administrator (e.g. Rose, Tina).

- Per diems can be reimbursed through Mosaic after the conference or summer school by filling out an expense form and giving it to Mara or another administrator along with your food receipts. There is a standard per diem of $17 per meal (CDN if you are in Canada or US for elsewhere) however you should discuss with your supervisor before attending the conference or summer school if you will be getting the standard per diem, or a reduced per diem.

- If you require additional funding for travel see "Travel specific awards" under Scholarships

For more information on reimbursements, see complete policy here (https://www.mcmaster.ca/bms/policy/accounts_payable/ap01-rem_univ_bus.pdf).

Teaching Assistant (TA) Income

- Much of a graduate student's income typically comes from a teaching assistantship (see TAing for more details). Generally, a teaching assistantship consists of 260 hours per year paid at ~$40 per hour (exact hourly pay may vary from year to year), i.e. ~$10,400 per year.

Opening a Student Line of Credit

- Most banks (e.g. TD, RBC) offer student lines of credit up to $16,000 as long as you have a cosigner. Interest rates can be Prime + 1% or 1.5%. To get the process started, find a cosigner who is willing to give the bank their tax reports for the past couple years, and set up a meeting at the bank with one of their financial advisers.

Other financial resources

Ontario Student Assistance Program (OSAP) (https://www.ontario.ca/page/osap-ontario-student-assistance-program) for students from Ontario

The Ontario Electricity Support Program (https://ontarioelectricitysupport.ca) will give you up to $60 per month to help pay for your hydro bills. You will likely qualify with a graduate student income.

Living in Hamilton

Your experience during your time in graduate school will be shaped as greatly by your time spent off campus as the time spent on it. Hamilton can offer a lot of different things to a lot of different people, and finding the aspects of the city that you enjoy most can make a huge difference in your happiness and productivity during your time at McMaster.

Where to live

The part of the city that you choose to live in will probably be the greatest deciding factor in determining what sides of Hamilton you see or do not see. Fortunately, McMaster's location within Hamilton gives you a lot of different options when choosing where to live with options ranging from a gritty urban core with a thriving arts scene, to century homes in a friendly neighbourhood, to an idyllic small town setting, all within biking distance of campus. Typically students will live in one of five different areas, depending on their lifestyle preferences; more specifically, popular locations include

- Westdale
- Downtown
- Strathcona/Kirkendale
- Emerson/Ansile Woods
- Dundas

Getting around

- All graduate students at McMaster have access to the HSR bus service (http://www.hamilton.ca/CityServices/transit?WT.mc_id=hsr&WT.hamilton_redirect_friendly=1/) included in their student fees.
- Hamilton also has a bike share program, SoBi (https://hamilton.socialbicycles.com/#memberships). They have many payment plans, and a very attractive $70/year plan for McMaster Students.

- For those looking to drive to and park on campus, see http://parking.mcmaster.ca/Rates.html for details regarding parking pass pricing.

- For transportation outside the city of Hamilton there the following services: GO transit (http://www.gotransit.com/publicroot/en/default.aspx) (bus and train service to the greater Toronto area; a one way trip to Toronto is ~$10), Greyhound (https://www.greyhound.ca/default.aspx) (bus service to a variety of locations in Canada and the United States), and Coach Canada (http://www.coachcanada.com/coachcanada/language.asp) (bus service to a variety of locations in Canada and the United States). All these services have stops on campus.

Housing

Rent varies depending on the living accommodations you choose (e.g. one bedroom apartment or a bedroom in a house), and its location within the city. For a bedroom in a house with a few other people you can expect to pay $300-600 per month depending on the location and what other amenities are provided. For a one bedroom apartment you can expect to pay $700-1200 depending on the location, what other facilities are in the building (e.g. fitness room) and how recently the apartments have been built/renovated. Bachelor apartments as well as two bedroom apartments (with rent split between the two occupants) tend to be much cheaper options than a one bedroom with similar living conditions, often two bedroom units cost as little as $200 per month more than a one bedroom of comparable quality i.e. $1200/2people vs $1000/1person.

For a list of housing ads (including prices) targeted towards McMaster Graduate students/Faculty/Staff see https://macoffcampus.mcmaster.ca/classifieds/category/gradfacultystaff-rentals/.

Groceries

In terms of groceries, you can check out the Metro (http://www.metro.ca/flyer/index.en.html), Fortinos (http://www.fortinos.ca/en_CA/flyers.banner@FORT.storenum@72.html), Food Basics (https://www.foodbasics.ca/flyer.en.html), and Nations (http://nationsfreshfoods.ca/hamilton_flyer.html) flyers to get an idea of prices (you can use the postal code L8S 4L8 if prompted).

Major grocery stores

- Metro in Dundas (https://www.google.ca/search?q=metro+dundas&npsic=0&rflfq=1&rlha=0&rllag=43260289,-79947506,618&tbm=lcl&ved=0ahUKEwivjuDl77LYAhXF44MKHZ4bDvMQtgMIKw&tbs=lrf:!2m1!
79.9475064999999!3d43.26028945!2m3!1f0!2f0!3f0!3m2!1i327!2i229!4f13.1)
- Metro at University Plaza (https://www.google.ca/search?q=metro+dundas&npsic=0&rflfq=1&rlha=0&rllag=43260289,-79947506,618&tbm=lcl&ved=0ahUKEwivjuDl77LYAhXF44MKHZ4bDvMQtgMIKw&tbs=lrf:!2m1!
79.9475064999999!3d43.26028945!2m3!1f0!2f0!3f0!3m2!1i327!2i229!4f13.1)
- Fortinos in West Hamilton (https://www.google.ca/search?tbm=lcl&ei=bh9IWrqRIOSijwSs6pTwBQ&q=Fortinos+Hamilton&oq=Fortinos+Hamilton&gs_l=psy-ab.3..0l10.1358.2593.0.2680.9.5.0.3.3.0.199.315.0j2.2.0....0...1c.1.64.psy-ab..4.5.341...0i131i67k1j0i131k1j0i67k1.0.7qlHhl_z5e0#rlfi=hd:;si:14066996307751796423;mv:!1m3!1d16255.287209717942!2d-79.89931821606444!3d43.2519848964038O5!3m2!1i946!2i537!4f13.1)
- Fortinos at the King and Dundurn (https://www.google.ca/search?tbm=lcl&ei=bh9IWrqRIOSijwSs6pTwBQ&q=Fortinos+Hamilton&oq=Fortinos+Hamilton&gs_l=psy-ab.3..0l10.1358.2593.0.2680.9.5.0.3.3.0.199.315.0j2.2.0....0...1c.1.64.psy-ab..4.5.341...0i131i67k1j0i131k1j0i67k1.0.7qlHhl_z5e0#rlfi=hd:;si:9785184944863495153;mv:!1m3!1d8125.834152251256!2d-79.88434626787455!3d43.265541986871035!3m2!1i403!2i537!4f13.1)
- Nations in Jackson Square (https://www.google.ca/search?tbm=lcl&q=Nations+Hamilton&spell=1&sa=X&ved=0ahUKEwi_66es8LLYAhUm44MKHZffDksQvwUICygA&biw=1366&bih=682#rlfi=hd:;si:9673440131943822
79.87312539999999!3d43.2584176999999995!2m3!1f0!2f0!3f0!3m2!1i946!2i562!4f13.1)
- Food Basics in Westdale (https://www.google.ca/search?biw=1366&bih=682&tbm=lcl&ei=0B9IWv-KBoKZjwTKnb1Y&q=Food+Basics+Hamilton&oq=Food+Basics+Hamilton&gs_l=psy-ab.3..0j0i7i30k1l5j0j0i7i30k1l2j0.32775.34369.0.34514.11.11.0.0.0.0.131.1076.3j7.10.0....0...1c.1.64.psy-ab..2.9.970...38j0i8i13i30k1.0.iDHQ1qKNILk#rlfi=hd:;si:10316371903656789743;mv:!1m3!1d16252.581603551234!2d-79.89474358010256!3d43.26212092073558!3m2!1i946!2i537!4f13.1)
- No Frills on Main East (https://www.google.ca/search?biw=1366&bih=682&tbm=lcl&ei=9B9IWo_gNsPajwSPoYWwDQ&q=No+Frills+Hamilton&oq=No+Frills+Hamilton&gs_l=psy-ab.3..0i7i30k1l10.24142.26361.0.26467.15.14.0.0.0.0.187.1300.0j10.10.0....0...1c.1.64.psy-ab..6.9.1120...0j38j35i39k1j0i131i67k1j0i67k1j0i46i67k1j46i67k1.0.bQ-3WHJlWR0#rlfi=hd:;si:1932489507545147040;mv:!1m3!1d16255.118046346277!2d-79.85092721271974!3d43.252618689746235!3m2!1i946!2i537!4f13.1)

Farmer's Markets

- Hamilton Farmer's Market (https://hamiltonfarmersmarket.ca/) (indoor Tues and Thurs-Sat 8-6 all year)
- Locke St Farmers Market (https://lsfm.wordpress.com/) (Sat 9-1 Jun- Oct)
- Ottawa Street Farmers Market (http://ottawastreetfarmers.com/index.html) (Sat all year 9-1)
- Dundas Farmer's Market (https://www.facebook.com/DundasMarket/) (Thurs 3-7 Jun-Oct)
- Durand Urban Farm Market (https://www.facebook.com/durandmarket/) (Wed 3-7 Jun-Oct)
- McMaster Farm Stand (https://www.msumcmaster.ca/services-directory/15-mac-farmstand) (Wed and Thurs 11-4 April-November)

Restaurants, bars, and cafes

- Food & Drink Where to get these things on and off campus.

Entertainment

Theatre Live Music Sports Nightlife Art Movies Dance

Festivals and events

Hamilton (and surrounding areas) has a variety of events throughout the year. Some notable ones include

- Supercrawl
- Art crawl
- Hamilten short play festival
- Hamilton Fringe
- Locke Street Festival
- Festival of Friends
- Winona peach festival (Winona)
- Westfest
- Sound of music festival (Burlington)
- Because Beer
- Sew Hungry
- Hamilton Film Festival
- AGH BMO World Film Festival
-

New Students

General information

- New Students - Course registration, living in Hamilton, etc.

Interprovincial students

International students

The department welcomes all international Students to McMaster. More information regarding information specifically for international students can be found on the ICent App that the Univerity provides for Android and IOS: https://www.icentapp.com/ As a new student you can log in with your MacID and the McMaster password.

In addition, we recommend contacting the international graduate student Association (IGSA): https://www.facebook.com/groups/McMaster-International-Graduate-Student-Association-(MAC-IGSA)-283101788458795/ or via email: igsa@mcmaster.ca

Travel

Finding conferences

As a graduate student you are expected to be actively searching for conferences/summer schools where you can present your work, network with other scientists, and stay connected to contemporary research. This can be hard if you do not know where to look, and so below we present some useful tools.

Astronomy

The Canadian Astronomy Data Centre (http://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/meetings/) maintains an updated list of future (and past) astronomy conferences over the next ~year.

Quantum Condensed Matter

Soft Condensed Matter

Biophysics

AMO Physics

Ultracold atom news (https://ucan.physics.utoronto.ca/Conferences)

Generic "quantum" conferences (http://quantum.info/conf/2018.html)

Young Atom Opticians - Typically held in Europe

DAMOP Annual Conference (https://www.aps.org/units/damop/meetings/index.cfm)

High Energy Physics

HEP-Inspire database (http://inspirehep.net/search?ln=en&cc=Conferences&p=fin+date+%3E+today&sf=year&so=a)

Cosmology

Reviews and recomendations

How to apply

Funding sources

Computing

This section contains information about computing in the Physics and Astronomy department.

Note: RHPCS is mentioned as a useful resource for computing support throughout the following pages. Before contacting RHPCS consult your supervisor to avoid surprise charges to their account. RHPCS charges per email & hour of support, so your supervisor may want to limit the use of RHPCS's services. Your supervisor, groupmates or other department members may be able to help with your computing issues as well. You can also request administrative privileges from RHPCS if you are comfortable managing your own machine.

Day-to-day problems and solutions

High-performance computing

- Computing - Getting set up, high performance computing, e-mail, etc.

Tips and tricks

Sections

MediaWiki Guide

To get write access to the P&A Wiki, contact Ryan Chown (chownrj at mcmaster dot ca) and/or Sebastian Himbert (himberts at mcmaster dot ca).

Consult the User's Guide (//meta.wikimedia.org/wiki/Help:Contents) for information on using the wiki software.

- Configuration settings list (//www.mediawiki.org/wiki/Manual:Configuration_settings)
- MediaWiki FAQ (//www.mediawiki.org/wiki/Manual:FAQ)
- MediaWiki release mailing list (https://lists.wikimedia.org/mailman/listinfo/mediawiki-announce)

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Courses

From PAWiki

At McMaster, each course (lasting a full semester) is worth 3 units. Be aware that some courses are half-courses, which are worth 1.5 units and only last 6 weeks.

- Note: Courses starting with '6' are crosslisted with 4th year undergraduate courses. These courses will generally be three 50 minute lectures per week, and will not run during that corresponding semester's reading week, while grad courses still run during reading weeks. At most one 600-level course can be used to meet the course requirements for the MSc degree. PhD students cannot use 600-level courses to satisfy their degree requirements.

Course schedule for Fall 2017 can be found here -> (File:GradTimetableTerm1. Fall 2017.pdf). Links to course outlines can be found here: [1] (https://www.physics.mcmaster.ca/graduate-studies/graduate-courses.html).

All of the courses listed above are courses offered by the physics department. Graduate students can also take courses outside of the physics department (as long as the core course requirements are met, see below). These courses must first be approved by your supervisor, and in some cases the grad chair. Generally, graduate courses offered by Medical Physics, Computer Science, Mathematics, and Chemistry are easily approved (depending on your research discipline of course). Course offerings from some of these key programs are listed below.

- Math graduate courses (https://www.math.mcmaster.ca/index.php/graduate-studies/graduate-courses.html)
- Computer Science graduate courses (http://www.cas.mcmaster.ca/cas/0template1.php?1005)
- Chemistry graduate courses (http://www.chemistry.mcmaster.ca/graduate/prospective-students/graduate-courses)

Students can also take courses at the Perimeter Institute, or at other universities, without paying additional tuition. Discuss this option with the grad chair to get the appropriate paperwork.

Some relevant courses may also be emailed to you in the weeks leading up to September or January, so keep an eye out for suggested possibly relevant courses.

MSc Requirements

Four total courses, of which at most one can be taken at the 600-level. Core courses are encouraged but not required for the MSc.

PhD Requirements

Six total courses including at least two core courses. Four of the six courses were taken during the MSc years. The two PhD courses must be at the 700-level. If a student comes to McMaster after doing an MSc elsewhere, they are required to only take two courses. The core course material can be covered during the MSc; if you think you have taken an equivalent to our core courses, bring a course outline to the Associate Chair. If approved, you will still have to take 2 courses but they can be at a more advanced level.

Core Courses

Physics 739 Advanced Quantum Mechanics I

Physics 740 Advanced Quantum Mechanics II

Physics 746 Classical Electrodynamics

Physics 750 Statistical Mechanics

Since some courses are taught on an approximate 2 or 3 year rotation, it is useful to know the last time something was taught. Here's a list of the courses taught in the past few years.

2018/2019

Fall

Physics 6S03 Intro. Molecular Biophysics (Dr. Fradin)

Physics 6B03 Electromagnetic Theory (Dr. Lee)

Physics 6G03 Computational Physics (Dr. Sorensen)

Physics 729 Condensed Matter Physics I (Dr. Gaulin)

Physics 739 Advanced Quantum Mechanics I (Dr. Kallin)

Physics 753 Advanced Statistical Mechanics (Dr. Lee)

Physics 761 (First Half) Introductory Astrophysics I (Dr. Sills)

Physics 762 (Second Half) Introductory Astrophysics II (Dr. Parker)

Physics 786 (Second Half) (Dr. Pudritz)

Physics 721 Nuclear Physics (TRIUMF/UBC)

Winter

Physics 6F03 Quantum Mechanics (Dr. Kallin)

Physics 6K03 Solid State Physics (Dr. Imai)

Physics 730 Thin Film Characterization (Dr. Imai)

Physics 746 Classical Electrodynamics (Dr. Wadsley)

Physics 750 Statistical Mechanics (Dr. Shi)

Physics 755 Physical Properties of Polymers (Dr. Dalnoki Veress)

Physics 768 Observational Cosmology (Dr. Parker)

Physics 769 Optical and Infrared Instrumentation and Observational Techniques (Dr. Welch)

Physics 781 Galactic Dynamics (Dr. Sills)

Origins 701 Survey of Astrobiology (Dr. Pudritz)

2017/2018

6S03 Intro. Molecular Biophysics (Dr. Fradin)

6B03 Electromagnetic Theory (Dr. Lee)

6G03 Computational Physics (Dr. Sorensen)

Physics 729 Condensed Matter Physics I (Dr. Gaulin)

Physics 739 Advanced Quantum Mechanics I (Dr. Kallin)

Physics 776 (second half of term) Star Formation (Dr. Pudritz)

6E03 Nuclear & Particle Physics (Dr. Burgess)

6F03 Quantum Mechanics II (Dr. Kallin)

6K03 Solid State Physics (Dr. Imai)

Physics 730 Condensed Matter Physics II (Dr. Imai)

Physics 740 Advanced Quantum Mechanics II (Dr. O'Dell)

Physics 750 Statistical Mechanics (Dr. Shi)

Physics 755 Properties of Polymers (Dr. Dalnoki-Veresss)

Physics 756 Special Topics in Biophysics (Dr. Fradin)

Physics 775 Theoretical Cosmology (Dr. Couchman)

2016/17

Physics 729 Condensed Matter Physics I

Physics 730 Condensed Matter Physics II

Physics 735 Superconductivity

Physics 739 Advanced Quantum Mechanics I

Physics 746 Classical Electrodynamics

Physics 750 Statistical Mechanics

Physics 753 Advanced Statistical Mechanics

Physics 761 Introductory Astrophysics I

Physics 762 Introductory Astrophysics II

Physics 765 Planetary Astronomy

Physics 766 Statistics in Astronomy

Physics 785 Interstellar Medium

2015/16

Physics 729 Condensed Matter 1

Physics 730 Condensed Matter 2

Physics 739 Quantum 1

Physics 740 Quantum 2

Physics 746 Electrodynamics

Physics 750 Stat Mech

Physics 755 Properties of Polymers

Physics 761 Intro Astro 1

Physics 762 Intro Astro 2

Physics 768 Observational Cosmology

Physics 785 Interstellar Medium

Physics 788 Special Topics in Astronomy (computational astrophysics)

2014/15

Physics 729 Condensed Matter 1

Physics 730 Condensed Matter 2

Physics 739 Quantum 1

Physics 740 Quantum 2

Physics 747 Electrodynamics

Physics 750 Stat Mech

Physics 753 Advanced Stat Mech

Physics 756 Special Topics in Biophysics

Physics 776 Theoretical Cosmology

Physics 778 Star Formation

Physics 781 Galactic Dynamics

2013/14

Physics 719 Compressible Fluid Dynamics

Physics 729 Condensed Matter 1

Physics 730 Condensed Matter 2

Physics 735 Superconductivity

Physics 739 Quantum 1

Physics 740 Quantum 2

Physics 746 Electrodynamics

Physics 748 Topics in Theoretical Physics

Physics 750 Stat Mech

Physics 755 Properties of Polymers

Physics 761 Intro Astro 1

Physics 762 Intro Astro 2

Physics 766 Statistics in Astronomy

Physics 782 Galactic Astronomy

2012/13

Physics 729 Condensed Matter 1

Physics 730 Condensed Matter 2

Physics 735 Superconductivity

Physics 739 Quantum 1

Physics 740 Quantum 2

Physics 746 Electrodynamics

Physics 750 Stat Mech

Physics 753 Advanced Stat Mech

Physics 756 Special Topics in Biophysics

Physics 761 Intro Astro 1

Physics 762 Intro Astro 2

Physics 768 Observational Cosmology

Physics 775 Planetary Astronomy

Physics 785 Interstellar Medium

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Committee Meetings

From PAWiki

This page contains information on Committee Meetings - what are you required to do? How often do you need to have them? What forms need to be filled out?

Contents

General Information

Committee meetings are meetings wherein students present their progress to their supervisor and two (sometimes three) selected committee members. These two members are typically chosen by the student and the supervisor prior to the first meeting. Within the meeting, the student gives a ~15 min research presentation, after which the committee members pose questions and provide feedback regarding the student's progress. The meetings exist to ensure that students remain on track towards completing their degrees and receive necessary guidance.

Committee meetings are **mandatory** for all graduate students. Master's students must complete a committee meeting before the 18th month of their degree. PhD students must complete one committee meeting per year (between September 1st and August 31st), otherwise, the department will be fined $7500 by the School of Graduate Studies.

Prior to the Meeting

First, the student must schedule the meeting. He or she should correspond with the supervisor and committee members to select a date and time which works for all. Once the meeting has been scheduled, the student is responsible for reserving a meeting room and a projector, which can be done through the Graduate Secretary.

Once the meeting has been scheduled, Master's and PhD students will receive an email from SGS with links to the committee meeting forms on Mosaic. The completion of these forms should be discussed with the supervisor. The student must complete these forms prior to the meeting. The student is also responsible for completing the final page of the form, in which the student outlines their progress towards completing the degree. Typically, this information is entered into a separate document by the student and is subsequently appended to the form (be sure to write "see attached" in the space provided in the form if this is done). The information contained within this report should include a cumulative list of:

- courses completed (and the marks attained)
- comprehensive examination preparation/completion (if applicable)
- progress in research
- conference oral/poster presentations

- publications
- thesis chapters written/revised
- anything else that applies to your project.

The student may choose to complete this report using a template found here: File:CommitteeMeetingTemplate.tex. Supervisors may prefer to receive the presentation slides as report. The report can be uploaded to Mosaic prior to the meeting.

It is the student's responsibility to set up prior to the meeting, which includes bringing the projector to the room, and setting up their presentation to be projected onto the screen.

During the Meeting

The meeting begins with a roughly 15 min research presentation from the student. This talk should include a brief introduction to the project (putting it into the context of the field), the results and progress that have been made on the research project, and future work that remains to be completed. Afterwards, the committee members will raise questions to gauge the student's understanding and increase their own understanding so they can provide useful feedback. The committee will discuss the project with the student and outline any concerns they have or issues that need to be addressed. The meeting is typically around one hour long. Finally, the student is asked to leave as the committee discusses the progress of the student and completes their committee meeting report.

After the Meeting

The student will receive the committee report via Mosaic after the meeting. This report will include comments regarding progress and future goals from the supervisor and committee members, as well as a grade from each. The grades are E-Excellent, G-Good, s_satisfactory, M-Marginal, and U-Unsatisfactory. Typically, the marks are consistent between the members of the committee. If the student receives a general consensus of M in two years or one general consensus of U, the student will be sent a warning letter from the Associate Dean (for a Master's student, an equivalent letter would be sent from the Graduate Chair instead). In these cases, another committee meeting is typically scheduled to occur in the near future to ensure the student gets back on track. If a student receives a general consensus of U in two committee meetings, the student can get kicked out of the degree program.

The student must sign this report, and subsequently return it promptly to the Graduate Secretary. Students may photocopy the form if they wish to retain it for their records. Alternatively, students may ask to view it from the Graduate Secretary at any time during their studies.

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Comprehensive Exams

From PAWiki

This section contains information on the comprehensive exams. This includes current procedures, organizers, examples of questions from previous years, and what to expect during and leading up to the exam.

Contents

General Information

The comprehensive examination is an oral examination which lasts approximately two hours, and will normally take place within 24 months after a student first registers in the Ph. D. program. The examinations for all the candidates in a given academic year will occur within a week or two, at the end of February or beginning of March. The examining committee will consist of three faculty members, with one designated as chair. The supervisor of the student will also be present, but wont be participating in the examination procedure.

The student will be given approximately 30 minutes before the committee members arrive to review the exam questions. These question (roughly 4 or 5) would be the starting point for follow up questions and discussion during the exam. The student may take this 30 minutes to write down ideas and formulate solutions.

Once the members arrive, the student will give a fifteen minute presentation about his/her research at the beginning of the examination. The presentation should explain the context and motivation of his/her intended thesis topic, plus progress he/she has made.

After the presentation, the examiners may ask the student about his/her research before diving into the exam. The exam will start by the committee members asking you about the questions which provided to the student earlier and further extending them by asking follow up questions. As a student, you are expected to be able to communicate your idea for how to solve a set of question with other physicists (the examiners in this case). The back and forth discussion (examination) will continue for about two hours after which you will be asked to leave the room and go home without discussing the outcome of the exam with others.

Following each examination, the examining committee will discuss and evaluate the performance of the candidate. As soon as possible following the last examination, the committee will present its recommendations to the department at a faculty meeting. The possible recommendations are: Pass with Distinction, Pass, and Fail. At this time the performance of all the candidates will be discussed and a final decision regarding student standings will be taken by the department as a whole. The academic record and research progress of candidates who receive a failing grade will undergo a wider examination, in order to decide whether they will be allowed to repeat the exam the

following year, or be asked to withdraw from the program. Students will be notified in writing of their grade immediately following this meeting. This information will be the student's to disseminate as he/she sees fit; no information regarding the grades, or distribution of grades, will be released by the department.

Format

The exam format is the same for all students (Astronomy and physics), but details could change. If you have specific questions, you should speak with your supervisor or the comprehensive exam chair. In general, you are expected to be at your comps 30 minutes before the exam, where you will be give a subset of the questions to review. Once the exam members arrive, you have to give 15 minute presentation about your research. After your presentation, the exam will start, where the examiners will begin by asking you about the questions which were provided to you at the beginning. You are expected to be able to communicate your idea for how to solve a set of question with other physicists (the examiners in this case). The back and forth discussion (examination) will continue for about two hours after which you will be asked to leave the room and go home without discussing the outcome of the exam with others.

When and How

You will first hear about comprehensive exam at your committee meeting, which should be sometime during the summer (7-8 months before you actually write your exam). This is the best time to ask any general questions that you may have. Depending on the format of the exam, you may be provided with the reading list. After this, you should receive an email regarding comps sometime early September, this email will provide you with more information about the exam. The time, and location of the exam will be decided by the Graduate Secretary and you will be notified once the details have been confirmed.

Comprehensive Exam Committee Members

Your supervisor and the chair of the comprehensive examination will decide who will be on the exam committee. You will be notified about this information as soon as it has been decided. If you have any major concerns about this decision, you should speak with your supervisor or the comps chair immediately.

Reading List

Your reading list will contain a list of books and research articles that you will be tested on. In general, it contains materials that your supervisor and exam committee members think are essential and that you should know. Depending on the format of the exam, you should be provided your reading list roughly 7 to 8 months before your exam date (optimally during your committee meeting). The exact number of items on the reading list (number of books and articles) will be different for each person. Your supervisor, the comprehensive exam chair and all

members of the exam committee will be aware of what is on the reading list and to what depth the student is expected to know the content on the list. If you have any concerns about the material you should speak with your supervisor.

Study Guide

Writing the comprehensive exam is probably one of the more stressful things you would be doing in your second year of PhD, so it is important to plan your study to minimize any unnecessary stress. The following information is meant to be only a guide.

- Forming study groups: You could form study groups with other students, preferably in your field, who are writing the comprehensive exam.
- Practice exams with your supervisor: It is extremely useful to go through few practice exams with your supervisor, preferably in the same room your writing your exam in. Being able to explain the solution to a problem verbally is as important as knowing how to solve a problem.
- Time management: Although you may have TA duties and a demanding research schedule, it is very important to preschedule your comps study in advance. You should try to leave at least one week before your exam date to review the content on your reading list. The exact amount of time you need to study depends on many factors, but you should expect to spend roughly a month studying full time everyday.
-Help: It is extremely helpful to speak with students who have already written comps in the previous years and ask them for tips and tricks.

Examples

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Comprehensive_Exams&oldid=162"

- This page was last modified on 7 May 2015, at 14:30.
- This page has been accessed 27,559 times.

Offices and Physical Environment

From PAWiki

This page contains information on the physical space we work in. Anything related to complaints or general information about the building is here.

Coffee Room

The coffee room on the 3rd floor (ABB 325) is "not a lunch room". All those people who you see in there around noon with lunch bags are clearly doing something else.

Coffee club: $10/month, payable to Tina in the main office, covers all the coffee and tea you can drink in ABB 325, including the milk & sugar.

Please turn off the coffee machine if it's near the end of the day (update: the new coffee machine now turns itself off!), and obviously clean up any spills, including in the microwaves.

Complaints

Office temperature too hot or cold? Is the cleanliness of an office, washroom, or other area a concern? Ergonomics an issue?

Email a Gripe Committee Student Advocate first. They advise on a course of action, and keep a log of complaints so that systematic issues can be addressed. Otherwise, the contact in the department for office or physical environment issues is Mara Esposto (ABB 240).

2016 Student Advocates

Ian Roberts <roberid@mcmaster.ca>

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Offices_and_Physical_Environment&oldid=256"

- This page was last modified on 21 October 2016, at 10:27.
- This page has been accessed 9,139 times.

Equity and Inclusion

From PAWiki

Contents

Department Statement

The Department of Physics & Astronomy endorses McMaster's statement on Building an Inclusive Community with a Shared Purpose:

At McMaster University, an inclusive community is one in which there is real, visible and meaningful representation of the diversity evident in the wider community at all levels and in all constituencies on campus (faculty, staff, students, administration). It is a community in which all members feel safe and empowered, valued and respected for their contributions to the shared purposes of the University; research and education excellence. It is a community where the rights of all individuals and groups are protected. Inclusion occurs when an organization provides equitable access to its services, benefits and opportunities, when systems and structures facilitate full participation by all members and where members are treated equitably and fairly and are recognized for their contributions. The key ingredients are equitable access, participation (especially in decision-making processes) and equal attention to the needs and aspirations of all.

In seeking to build an inclusive community with a shared purpose, McMaster University strives to embody these values:

RESPECT; COLLABORATION; DIVERSITY

A Respectful Community is one where freedom of expression, belief, and diversity of knowledge occur in a framework of dignity, respect, and public engagement.

A Collaborative Community is one where participants jointly move the academic vision forward in respectful and non-confrontational ways, having regard for personal and collective safety and well-being.

A Diverse Community is one that enables us to learn from our differences and that affirms our shared accountability for achieving access, equity, and meaningful inclusion of under-represented groups at all levels of the campus community.

File:Statement-Inclusivity.pdf

Who to talk to

In general, if a student feels that there are issues pertaining to diversity, harassment, or discrimination, they should discuss their concerns with someone that they trust and are comfortable with. Within the department, students can go to their supervisor or their TA supervisor; the Associate Chair; or the Department Chair. They can also talk to any other faculty member.

Outside the department, students can contact the Associate Dean of Graduate Studies for the Faculty of Science (adeangss@mcmaster.ca). The McMaster Ombuds office gives impartial advice to all members of the McMaster community [1] (http://www.mcmaster.ca/ombuds/). Students can also contact the Office of Equity & Inclusion [2] (https://equity.mcmaster.ca/). If the matter is related to TAing, the union may have some advice [3] (http://cupe3906.org/).

There are a number of groups within and outside the department who have diversity issues as part of their mandate, including the Graduate Women in Physics & Astronomy (GWIPA) and Women in Science & Engineering (WISE); McMaster Open Circles [4] (http://www.opencircle.mcmaster.ca/for-graduate-students); Queer Students Community Centre [5] (https://www.msumcmaster.ca/services-directory/9-queer-students-community-centre-qscc) (mostly for undergraduates) or lgbtq@mcmaster.ca (mostly for people who are not undergraduates -- no webpage for this group yet). MSU Diversity Services [6] (https://www.msumcmaster.ca/services-directory/11-diversity-services) is also set up for undergraduates, but they will be able to direct you to an appropriate office/community/contact person.

Strategies to Deal with Harassment

Harassment is defined as a course of vexatious comments or conduct that is known or ought reasonably to be known to be unwelcome. For a fuller definition and more information on dealing with harassment, this page [7] (https://equity.mcmaster.ca/resources-1/harassment) is quite useful. To summarize

If you are being harassed, you can do some or all of the following: ask for help; tell the harasser to stop; keep a record; protect yourself; and get support. If you witness harassment, you can do some or all of the following: offer support to the target of harassment; tell the harasser to stop; make a record; and get support.

As TAs and senior members of the McMaster student community, you are advised to be a role model; set clear expectations; monitor your workplace; and contact the Equity & Inclusion Office for support and guidance.

Relevant McMaster Policies

All Human Rights and Equity Policies: [8] (https://www.mcmaster.ca/policy/General/HR/)

Of particular note is the new policy on Discrimination, Harassment & Sexual Harassment: Prevention and Response. All graduate students should read this policy carefully, as you have duties and obligations as "Persons in Authority" in your roles as TAs. As a general rule, if you are approached by a student with a questionable situation, you should contact the Equity & Inclusion office for advice; but you may be called on to do more than that, so you should be aware of your responsibilities.

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Equity_and_Inclusion&oldid=309"

- This page was last modified on 18 November 2016, at 14:41.
- This page has been accessed 14,845 times.

Academic Interactions

From PAWiki

Contents

Physics and Astronomy Colloquium

The Physics and Astronomy Department's colloquium is held every Wednesday in ABB-102 at 15:30. Tea, coffee, cookies, and fruit are served at 15:10 in ABB 273 lounge. Attendance is important, especially for talks outside your field. The schedule can be found here (https://www.physics.mcmaster.ca/?menu=11) or on the bulletin board outside ABB-241. The speaker typically meets with interested students immediately following the colloquium in ABB-319.

If you would like to meet with the speaker please see or e-mail Tina Stewart (tstewar@mcmaster.ca) to add yourself to the speaker's schedule.

Speakers can be requested by emailing the Colloquium organizing committee.

Other Talks

On Mondays at 2:30 the Origins Institute (https://origins.mcmaster.ca/) has colloquium from an invited speaker in MDCL-1110. See here (https://origins.mcmaster.ca/events/colloquia) or the bulletin board outside the main office (ABB 241) for the title and abstract of the upcoming talk. The speaker typically meets with interested students and faculty in ABB-245 at 10:30. Coffee is provided.

There are occasional Origins Institute public lectures beginning at 8pm (early seating is encouraged). See here (https://origins.mcmaster.ca/events/public-lectures) for the dates and tites of upcoming public talks. Admission is free.

On Mondays at 15:30 the Brockhouse Institute for Materials Science (BIMR) has talks in ABB-163.

There are weekly e-mails from Tina Stewart (tstewar@mcmaster.ca) and Jennifer Anderson (janders@mcmaster.ca) with the titles and abstracts of the upcoming Origins and BIMR talks. Please contact them if you are not receiving these e-mails and would like to.

Journal Clubs

Astro Journal Club

Journal club meets every Thursday in ABB 304/A. For the Winter 2019 term they will take place on Thursdays from 12-1 in ABB-A304.

We aim for each grad student to give 2 talks per year; one paper talk and one research-related talk. Talks should be around 20-25 minutes long, including time for questions. Research talks can be shorter (a CASCA length talk for example, 12 min).

Paper talks should be on recently published papers, culled from astro-ph, ApJ, MNRAS, A&A etc. Grad students should clear their paper choice with their supervisor first.

Talks should be suitable for a general astronomy audience. This means that you should have some introduction slides for you paper topic. You may have to read some outside sources to do this.

If anything here is unclear there is a more detailed syllabus here (http://www.physics.mcmaster.ca/apjclub/syllabus/current.pdf)

Some JC slots this year will be used for astro-ph sessions. At these, everyone is encouraged to bring an interesting & recent astro-ph article to discuss. The discussions are informal, and you are encouraged to sign up papers ahead of time so the organizers can prepare and everyone can have a look. We will be sending around a google doc that you can use to sign up.

Our website can be found here (http://www.physics.mcmaster.ca/apjclub/index.cgi?page=home)

Condensed Matter Journal Club

The Condensed Matter Journal Club is intended for condensed matter physicists of all varieties. The club meets once a week on Thursdays between 12:00 & 13:00 hours in ABB-A204. At these meetings a member delivers a talk describing a recent publication or topic of contemporary interest in the field, followed by a lively discussion. Usually these talks are given by graduate students in the department, however occasionally the club may also host talks by speakers visiting from other institutions. These meetings provide a good opportunity for students to practise their speaking skills in a friendly environment and we encourage all graduate students to give at least one talk per year at these meetings.

More information can be found on our website (http://www.physics.mcmaster.ca/cmjclub/index.cgi?page=home)

Theoretical Physics Journal Club

The theoretical physics journal club is intended to be broad in scope, but to focus on issues in theoretical physics. We meet weekly with bi-weekly lectures and bi-weekly informal discussion interspersed; we meet in ABB-319. We typically give a speaker a two-week block. The first week speakers give a lecture on a topic of their choosing to aquaint the other members with the subject matter, and then suggest a relevant paper related to the chosen topic for discussion the following week. Occasionally a speaker will choose to give a second lecture in lieu of a paper. More information can be found on our website (https://theophysatmac.wordpress.com/).

Summer Graduate Colloquium

During the summers graduate students are tasked with organizing their own colloquium. This is an excellent opportunity to speak about your research, or a related topic you find interesting. There is typically an incentive for attending. In years past this has been some combination of: free cookies, the organizers go to the Phoenix and buy

a few pitchers, or a $20 Phoenix gift card given to the speaker.

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- This page was last modified on 30 November 2018, at 12:56.
- This page has been accessed 34,110 times.

Graduate Committees

From PAWiki

The page lists the graduate committees, what they do, and who is on them. Grad committee sign up occurs on the Grad Student orientation day which takes place at the beginning of September every year.

Contents

Liason Committee

The graduate student liaison committee acts as the main body through which the department/faculty members and graduate students communicate with each other. The main responsibility of the liaison committee is running the "Gripe Session" every year in October. During the Gripe Session issues concerning the following are discussed amongst the graduate students:

- Offices & Physical Environment
- Research Support & Scholarships
- Courses & Teaching Assistantships
- Committee Meetings & Comprehensive Exams
- New Students
- Computing
- Grad Student Committees
- Academic Interactions
- LGBTQ+
- Anything else students are concerned about

The liaison committee is responsible for summarizing the main points of the discussion and submitting them to the Graduate Chair in a report. The department does their best to address the concerns of the students in the following year.

The liaison committee also helps the department to recruit new students. Members help to organize lunches for prospective students with a small group of current graduate students. Members of the liaison committee also act as representatives of the department at graduate program fairs such as the one held during the Canadian Undergraduate Physics Conference (CUPC) held in October every year.

The chairs of the liaison committee are responsible for organizing and running the Gripe Session. The gripe session was born from the concern that graduate students did not have a resource for help with problems that came up throughout the year. In particular, the chairs are responsible for addressing graduate student issues that require urgent attention and cannot wait to be dealt with at the next year's Gripe Session. The chairs are also responsible for keeping a log of gripes that come up throughout the year.

Members (2018-19):

- Hank Chen
- Carmen Lee
- James Lambert
- Sachin Kotecha
- Ben Pearce
- Sean Takahashi
- Jiaming Wnag
- Lili Zhang
- Ian Roberts
- Ashley Bemis
- Kevin Lacaille
- Ryan Plestid
- Wyatt Kirkby
- Anton Borissov
- Matthew Richards

Entertainment Committee

The Entertainment Committee is responsible for helping graduate students to maintain a healthy balance between work and play. The main responsibility of the Entertainment Committee is to organize the Departmental BBQ which takes place at the end of September every year. All members of the department: faculty, students and staff are encouraged to attend with their families. The Entertainment Committee also helps the office staff organize the department's Holiday Party in December.

It was suggested at last year's Gripe Session that the Entertainment Committee should take a more active role in grad student life and organize more events throughout the year. In particular, more events at the beginning of the year are needed to help integrate new students into the department.

Members (2018-2019):

- Sean Takahashi
- Connor Buhariwalla
- Jiaming Wang
- Thanassis Psaltis
- Ashley Bemis
- Ryan Plestid
- Wyatt Kirkby
- Joey Rucska
- Tom Lai

Department Representatives

Members (2018-2019):

- Carmen Lee
- Wyatt Kirkby

Recruiting and Outreach Committee

The Recruiting and Outreach Committee is a new committee founded in the 2014/15 year. The committee was formed so that the department's Outreach Coordinator would have a readily available stock of volunteers for outreach events. Members of the committee help with a variety of activities including the following:

- Demos for visiting students
- Program fairs
- Engineering and Science Olympics
- Girls in Science

Members (2018-2019):

- Hank Chen
- JC Ono-dit-Biot
- Carmen Lee
- Adam Fortais
- Sachin Kotecha
- Connor Buhariwalla
- Ahmad Mahmood
- Sebastian Himbert
- Michael Radica
- Anton Borissov

Union Stewards

All graduate students who hold Teaching Assistantships are a part of CUPE 3906. Every department has at least one Union Steward that acts as a liaison between the members of the union and the executive of the union. The department steward is responsible for relaying important information to members about the union including upcoming meetings, major changes that effect the members, etc. The department steward is also responsible for voicing the concerns of members to the executive.

Current Union Stewards (2018-2019):

- Ben Pearce
- Matthew Richards

Scientist Association at Mac (SAM)

Physics and Astronomy Representitive (2018-2019):

- Sebastian Himbert
- Hamza Khattakza

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Graduate_Committees&oldid=451"

- This page was last modified on 10 December 2018, at 12:03.
- This page has been accessed 31,374 times.

Graduating

From PAWiki

This section contains information on the graduation process for MSc. and Ph.D degrees

Sections

- MSc -- instructions from the School of Graduate Studies (https://gs.mcmaster.ca/masters-degree-thesis)
- PhD -- instructions from the School of Graduate Studies (https://gs.mcmaster.ca/doctoral-degree)

Also always check with your supervisor, the grad chair, or Rose to find out if there's anything specific to your research group or the department.

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Graduating&oldid=426"

- This page was last modified on 9 January 2018, at 13:49.
- This page has been accessed 4,816 times.

Transition out of Academia

From PAWiki

This section is designed to provide resources for those students who wish to exit academia after completing their graduate degrees in Physics and Astronomy. This section does not provide advice for planning and pursuing academic positions. The resources and literature listed in this section are by no means comprehensive, and students are encouraged to continue developing and refining their individual career plans after consulting this wiki.

Motivation

A higher degree in a STEM field, such as physics, has proven career value for those who obtain the degree. Unfortunately, often the only obvious career is to pursue a tenure-track position at a research institution. The truth is (probably much) less than 20% of PhD holders in the physical sciences obtain tenure track position at a university. The rest must exit academia and obtain work outside a university. The act of planning a non-academic career takes considerable effort, honest self-assessment, and time commitment. The resources below should aid students in planning a transition from academia.

The general skills learned while obtaining a degree in physics (high level problem solving, etc.) are transferable to a large number of non-academic careers. A physics degree also endows a student with very refined skills relevant to their specific research field. A student needs to understand how the general and specific skills obtained during their degree will be used to find a suitable industrial position.

In addition, a student should identify and obtain additional non-academic skills, resources and experience which may be needed to pursue their desired career, especially if they are not offered in the Department. Efforts should be made to look for appropriate extra-curricular activities, volunteer opportunities, or networking opportunities.

Resources

1. General career planning and navel gazing. The need for graduate students to consider non-academic careers has been recognized by most universities and scientific organizations. Plenty of resources are available online to help students think about what they may want to do. Two examples come from the AAAS and APS (linked below). In particular, APS has testimonials from physicists in non-academic positions.
    1. APS Testimonials (http://www.aps.org/careers/guidance/development/index.cfm)
    2. Science Careers by AAAS (http://myidp.sciencecareers.org/)
    3. Jobs For Astronomers (http://www.jobsforastronomers.com)
    4. Panel Discussion: Advice for a Diverse Range of Careers (from AAS) (http://aas.org/posts/news/2015/08/panel-discussion-advice-diverse-range-careers)
2. Networking opportunities. Organizations exist within McMaster and the Hamilton area which provide opportunities for students to meet and speak to those with careers outside of academia. A brief list is below. In addition, opportunities are provided by the Department, the GSA, and Graduate Studies to learn about non-academic careers through events such as career nights. Students are encouraged to carefully monitor their email, and consider attending these events.
    1. Sustainability Professionals Network (http://www.hamiltonspn.com/)
    2. McMaster Consulting Association (https://www.facebook.com/McMasterConsultingAssociation)
3. Funding for internships and collaborative opportunities are available for students who wish to continue in science, but in an industrial setting. If your project may be applicable to an industrial client, and you think there is interest on the part of the client, funding is available to make that connection easier.
    1. Mitacs (https://www.mitacs.ca/en)
    2. NSERC Engage (http://www.nserc-crsng.gc.ca/Professors-Professeurs/RPP-PP/Engage-Engagement_eng.asp)
    3. NSERC Connect (http://www.nserc-crsng.gc.ca/Professors-Professeurs/RPP-PP/Connect-Connexion_eng.asp)
4. Below are resources to help students craft resumes/cover letters. There are many online resources not listed here.
    1. Caroline Burgess: (http://www.carolineburgess.ca/) A local career consultant with ties to the department.
    2. SCCE (http://www.science.mcmaster.ca/scce/)

5. Additional commentaries (note: These served as references for the material in the Motivation section).
    1. You Need a Game Plan (http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2012_09_07/caredit.a1200100)
    2. Some Employment Statistics (http://www.aip.org/statistics/employment/phds)
    3. Cheeky Scientist (http://cheekyscientist.com/)

Testimonials

The passage above serves as theory. Below are testimonials submitted by recent graduates from the department who have found work outside of academia.

J.C., class of 2010:

> Take advantage of seminars and resources specifically focused on the non-academic job hunt. Writing a resume and a CV are very different, and it can be challenging for students to know how to frame their academic experience in a broader context to match "real-world" needs. There are really great career-service resources on campus to help you figure out how to do this.
>
> If you know early on that you are interested in a non-academic job, then try to take advantage of funding to connect with employers while you are still a student, for example, through NSERC's industrial scholarship programs.
>
> Learn to network. Request to talk to people in industries you are interested in through informational interviews. These feel incredibly awkward to do, which is why everyone should do at least one. I took classes through McMaster's continuing education department to expand my network. This connected me to people outside of academia, and gave me a better idea of what the job market was like, and make connections that could lead to job possibilities.
>
> Stay positive. Job hunting is hard work and can be incredibly demoralizing. Don't take it personally.

S.G., class of 2014

> Come to terms with the fact that not everyone who starts grad school is *lucky* enough to have a career in academia, nor having a PhD or a MSc degree entitles you to a good job. Understand what is at the stake and what are the pros and cons of each choice. Make sure you fully understand what you are committing yourself to.
>
> Work on your personal skills. Employers look for someone who plays well with others in their team on top of the ability to perform the tasks they are given.
>
> Develop some computer skills. Proficiency in at least one widely-used programming/scripting language (C++, Python, Java, R, etc.) is a MUST.
>
> The process of searching for a job (academic or non-academic) takes time and a lot of effort. Customize your application for each position you are applying for.
>
> Never ever underestimate the importance of networking.

Retrieved from "https://www.physics.mcmaster.ca/PAwiki/index.php?title=Transition_out_of_Academia&oldid=211"

- This page was last modified on 28 August 2015, at 08:18.
- This page has been accessed 6,359 times.

TAing

From PAWiki

In the Physics and Astronomy Department, all regular (ie. not overtime) full-time graduate students have the opportunity to hold 4 **teaching assistantships** (TAs) per calendar year. In general, most students will perform two TAs in the fall semester and two in the winter semester. The time commitment for each TA is 65 hours per section, or 260 hours per year. TAing duties for Physics/Astro can vary widely, but generally include: supervising labs, leading tutorials, marking assignments, holding office hours, and invigilating tests. Graduate student TAs at McMaster are represented by the Canadian Union of Public Employees (CUPE) Local 3906.

Contents

TA Assignments

In late spring of each year, current grad students will receive an email outlining the available teaching assistantships for the upcoming academic year. This list will include the course name, TA supervisor, projected enrolment, and the estimated number of TAs needed. Students are asked to compile a list of their 3 preferred TA assignments for the fall and winter semester. A smaller number of TA assignments are also available for the summer semester. Students who wish to be assigned in the summer need to request this when submitting their TA preferences.

In late August, a tentative list of the TA assignments will be circulated by email. Over the next two weeks, as the exact number of TAs required for each course is determined, the assignments for the fall semester will be finalized. Likewise, in December, updated TA assignments for the winter semester will be circulated. If you are a new graduate student in the department, it is very likely that your first TA assignment will be a first year introductory physics course, such as 1D03 (physics for engineering majors) or 1A03 (introductory physics for all majors).

Deferrals, Refusals, and Buyouts

Full-time PhD students can **defer** up to 1 term of their TA guarantee (subject to approval from the department). In the case of a deferral, the student's TA guarantee is extended by one term (ie. you can defer a TA for the fall term of year 2, and instead work as a TA in the fall term of year 5). This option is especially useful if you are unable to TA because of course work, fieldwork, or research.

You also have the option to **decline** to TA, which means you are refusing the work assignment. Please note that if you decline the TA, as opposed to deferring it, the department is under no obligation to offer you additional work at the end of your guarantee to make up for the work you decline. In some cases, your supervisor may offer to **buyout**

your TA. In the case of a buyout, you will receive compensation, but do not have to work. A buyout may affect your eligibility for benefits through CUPE.

TA Responsibilities

Your TA supervisor, likely the course instructor or lab coordinator, will be your main point of contact throughout the semester. Your TA supervisor is generally responsible for assigning your duties, scheduling your work, and providing specific training or guidance as it relates to your assignment. In the case of courses with weekly lab components, it is common to have weekly or bi-weekly TA meetings to go over the details of the experiment.

Prior to the beginning of your TA assignment, your TA supervisor must provide you with an **Hours of Work** form. This form should provide an outline for the types of duties you are expected to perform over the course of the semester, and an estimate of how your 65 working hours will be allocated. It is important that this form is filled out with adequate detail to avoid ambiguity. The majority of TA disputes are avoided by having a satisfactory Hours of Work form. Signed hours of work forms must be returned to the department office. Once your TA work begins, it is a good practice to keep a log of your hours worked. Working hours include, supervising labs, leading tutorials or workshops, marking, preparation, office hours, and invigilating. If you believe you might be on track to exceed 65 hours of work, contact your TA supervisor immediately!

TA Rights and Conflict Resolution

If you have a conflict or a concern that you have not been able to resolve directly with your TA supervisor, CUPE will work to mediate the conflict on your behalf. If you are unsure of who to contact, the department has union stewards that can direct you to the appropriate person. The departmental union stewards for the 2018-2019 academic year are Ben Pearce and Matthew Richards.

TA Income and Benefits

The current hourly rate of pay for graduate student TAs is **$41.80/hour** (however 2016/17 is the last year of this collective agreement). This salary is distributed over 8 biweekly payments during the semesters you are working as a TA. It is worth noting that scholarship salary payment is evenly distributed throughout the year. As a result, your total income will fluctuate throughout the year, and is likely to be significantly lower in the summer. The payment schedule can be viewed on the CUPE website or on your Mosaic account.

Graduate students who TA for at least 130 hours/year will receive **dental benefits** through CUPE. This plan provides a maximum of $1000 of coverage ($2000 for family coverage) for dental services (e.g. cleanings and fillings) per *calendar* year. For major restorative work such as a crown or a bridge, get your dentist to submit an estimate to the insurance company to check against your coverage before paying anything. Other benefits provided by CUPE are a health care spending account, which has a maximum entitlement of $250 per twenty four month period. This coverage primarily covers vision care. Students who do not TA for at least 130 hours per academic year (including those who have been bought out of their TA) do not qualify for the CUPE dental plan, and are covered by the GSA dental plan instead (which offers $750 of coverage per year).

Overtime TA's

Students beyond the second year of their Masters or fourth year of their PhDs are not guaranteed a TA posting (with the exception of deferrals, see above). Once all regular graduate students have been assigned TAs, the remaining positions are publicly posted and open to applicants, including overtime graduate students. Typically, however, these postings are given to undergraduate students.

TA Resources

- Resources for Graduate Student TAs (Unit 1) - Canadian Union of Public Employees (CUPE) 3906 [1] (http://cupe3906.org/about/unit-1-tas)
- CUPE 3906 Unit 1 Collective Agreement [2] (http://cupe3906.org/tas-unit-1/collective-agreement/)
- CUPE 3906 Unit 1 Health Benefits [3] (http://cupe3906.org/benefits-forms/unit-1-benefits)
- CUPE 3906 Unit 1 Dental Plan [4] (http://cupe3906.org/tas-unit-1/dental-plan/)
- GSA Dental Plan [5] (http://studentcare.ca)

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Scholarships

From PAWiki

Financial support for students can come from five main sources: teaching assistantships, a research scholarship from the supervisor, departmental scholarships, a tuition supplement for international students, and possibly external scholarships (NSERC, OGS, Trillium, etc). Our minimum offer, for students without any external scholarship or entrance scholarship, gives students approximately $17 000 after they have paid their tuition and fees, both for international and domestic students. Scholarship funding is not taxed in Canada, whereas the teaching assistant pay is tied to employment and therefore is subject to Canadian income tax.

The most important external scholarships for **domestic students** are the CGS-M, PGS-D, and CGS-D scholarships; you apply for these in September (PGS-D and CGS-D) or December (CGS-M). For **international students** the most important external scholarship is the Ontario Trillium Scholarship.

Contents

General Notes

- In general, in our department, scholarships are treated in the following way: the student's salary is increased by 45% of the award value; the supervisor's research scholarship contribution is reduced by 45% of the award value, and the departmental scholarship is reduced by 10% of the award value.
- Most scholarships are only available for Canadian citizens and permanent residents, however the following are available for international students:
  - International OGS (only one avilable for the Faculty of Science)

    - Ontario Trillium fellowship ($40k x 4 years for incoming PhD students who have never been at an Ontario university before)
- Most scholarships require that students have at least an average of 10 on the 12 point scale (i.e. around an A-) in each of the last 2 years of schooling.
    - Averages for students who have completed at least two years of grad school are computed using only graduate level courses
    - Averages for students who have completed less than two years of grad school are computed using any completed graduate level courses in addition to their last year of undergraduate studies.
- **All students who are eligible for scholarships (i.e. Canadian and with a high enough average) must apply for the relevant NSERC award in order to be considered for the OGS and OGF awards. You will not get an OGS if you do not apply for NSERC.** Students who currently hold NSERC awards that will end in the current year must submit a special form (sent to them by the associate chair) to be considered for the OGS. These students are:
    - students who have held a NSERC CGS-M in their first year of gradate students and are not considering starting their PhD in their second year;
    - students who are in year 3 of their PhD.
- There are a number of McMaster-specific awards (listed below). The departmental policy is that these are awarded to students who do not have NSERC or OGS/OGF funding, and the applications are submitted through Mosaic.

NSERC

The Natural Sciences and Engineering Research Council of Canada (NSERC) (http://www.nserc-crsng.gc.ca/index_eng.asp) is the largest federal government source of funding for science and engineering research. In particular, they offer a number of postgraduate programs (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/index_eng.asp) (i.e. funding opportunities for master's and doctoral students) which are detailed below.

Canada Graduate Scholarships-Master's Program (CGS-M)

- **Value**: $17,500 for 12 months, non-renewable

- **Eligibility**: Applicants must:
    - be a Canadian citizen or a permanent resident of Canada;
    - be enrolled in, have applied for, or will apply for full-time admission to a master's program (note: applicants who are not currently enrolled in their intended graduate program must submit an application for admission by the deadline for their intended graduate program or by March 15, whichever comes first);
    - have completed, as of December 31 of the year of application **no more than 12 months** of full-time studies in the master's program for which you are requesting funding;
    - not have previously held a CGS-M.
- Note: You can also apply for a CMGS-M if you are fast-tracking from a master's into a PhD program within the first 12 months of the master's program. In this case the funding will be for the first year of your doctoral studies.

- **Application procedure**
    - Create or access applications at the NSERC Research Portal (https://portal-portail.nserc-crsng.gc.ca/).
    - The application requirements are detailed here (http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/CGS_M-BESC_M_eng.asp). Of particular note is that the application requires two references, a Canadian Common CV (https://ccv-cvc.ca/indexresearcher-eng.frm), an outline of proposed research and transcript.

- Your application may be submitted to up to five different Canadian institutions. Accepting an offer from one institution automatically declines any other offers from other institutions where you submitted a CGS-M application. Your CGS-M award may only be tenured at the Canadian university where you have accepted their offer.

- **Deadline**: Application must be submitted by **8:00pm (ET) on December 1.** This includes completed letters of reference, so make sure to invite your letter-writers well before this deadline.

- **Additional information**: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/CGSM-BESCM_eng.asp

Canadian Graduate Doctoral (CGS-D) and Post-Graduate Doctoral (PGS-D)

- **Value**: CGS-D: $35,000 a year (for two or three years); PGS-D: $21,000 a year (for two or three years)

- **Eligibility**: Applicants must:
  - be a Canadian citizen or a permanent resident of Canada;
  - hold, or expect to hold (at the time you take up the award), a degree in science or engineering from a university whose standing is recognized by NSERC (if you have a degree in a field other than science or engineering, NSERC may accept your application at its discretion);
  - intend to pursue, in the following year, full-time graduate studies and research at the doctoral level
  - have obtained a first-class average (a grade of "A-") in each of the last two completed years of study (full-time equivalent);
  - have completed, as of December 31 of the year of application **no more than 24 months** of full-time studies in the doctoral program for which you are requesting funding;
  - you must not have previously taken up an NSERC PGS B, PGS-D, CGS-D, IPS 2 or a Vanier CGS (see below);
  - you must not hold, or have held, a CGS D or Vanier CGS from either CIHR (http://www.cihr-irsc.gc.ca/e/193.html) or SSHRC (http://www.sshrc-crsh.gc.ca/home-accueil-eng.aspx).

- Note: If you registered in a master's degree and subsequently transferred to a doctoral degree, the months in the doctoral degree will be calculated starting from the date on which you were officially registered in your PhD program.

- Note: you will be eligible for only a two-year CGS-D/PGS-D, if:
  - you previously held a two-year IPS 1 (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/IPS-BESII_eng.asp);
  - you have completed more than the full-time equivalent of 12 months of your doctoral program.

- Note: Scholarship support for graduate studies through NSERC is limited to a lifetime maximum of four years (48 months) of full-time equivalency.

- **Where scholarships can be held**:
  - You may take up your PGS-D at any eligible Canadian university. You may also take it up at any eligible foreign university, provided you have received a previous degree in the natural sciences or engineering from a Canadian university.
  - Without exception, CGS-D awards are tenable only at eligible Canadian universities.

- **Application procedure**:
  - Note: If you are interested in a CGS-D, apply for a PGS-D. There is no separate application form (or process) for the CGS-D Program. The highest-ranked PGS-D applicants will automatically be considered by NSERC for a CGS-D.
  - To apply for these scholarships, you must complete and submit Form 201 on-line (https://ebiz.nserc.ca/nserc_web/nserc_login_e.htm). Read the instructions on how to complete Form

201 (http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/201/pgs-pdf_eng.asp).
    - If you are currently registered at Canadian university in a degree program then you must submit your application through that university.
    - If you are currently registered at a foreign university or currently not registered at a university then you must submit your application directly to NSERC.
    - A complete application will have the following elements (see the instructions on how to complete Form 201 (http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/201/pgs-pdf_eng.asp) for more details):
        - Application Profile
        - Personal Profile
        - Addresses
        - Academic Background
        - Work Experience
        - Scholarships and other Awards Offered
        - Location of Tenure
        - Justification for Location of Tenure (PDF applicants)
        - Scholarship/Fellowship Information
        - Thesis Information
        - Key Words/Research Subject Code
        - Outline of Proposed Research (Attachment)
        - Justification for Eligibility of Proposed Research (Attachment)
        - Contributions/Statements (Attachment)
        - Transcripts (Attachment)
        - Reports on the Applicant

- **Deadline**:
    - If you are submitting through a Canadian university then you must consult the School of Graduate Studies at that institution (typically mid-October for McMaster).
    - If you are submitting directly to NSERC then your application must be submitted electronically to NSERC **before 8:00 p.m. (ET) on October 15**. You can only submit directly to NSERC if you were not registered at a Canadian university in the current calendar year.

- **Additional information**: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/BellandPostgrad-BelletSuperieures_eng.asp

Vanier Canada Graduate Scholarships Program (Vanier CGS)

- **Value**: $50,000 per year for 3 years (non-renewable).

- **Eligibility**: Applicants must:
    - be a Canadian citizen or a permanent resident of Canada or a foreign citizen;
    - be nominated by only one Canadian university
    - be registered as a full-time student at the nominating Canadian university and be pursuing your first doctoral degree
    - not have completed more than 20 months of doctoral studies as of May 1
    - have achieved a first-class average, as determined by your university, in each of the last two years of full-time study or equivalent. Candidates are encouraged to contact the university for its definition of a first-class average; and
    - not have already received a doctoral-level scholarship or fellowship from CIHR, NSERC or SSHRC to undertake or complete a doctoral degree.

- **Where scholarships can be held**:

    - Without exception, the Vanier CGS is tenable only at the eligible Canadian university that submitted the nomination.

- **Application procedure**:
    - Note: Each student can be nominated once. If more than one university is interested in nominating an individual student for a Vanier CGS, the student must choose one university to submit their nomination. Multiple nominations will not be accepted.
    - The application process is initiated when the student informs the faculty of graduate studies at the selected university of their intent to apply to the Vanier CGS program;
    - Applications are prepared by the student and submitted to the university by the nominating university's internal deadline (set in ResearchNet (https://www.researchnet-recherchenet.ca/rnr16/LoginServlet) by the nominating university) using the ResearchNet (https://www.researchnet-recherchenet.ca/rnr16/LoginServlet) application system.
    - See this page for detailed application instructions (http://www.vanier.gc.ca/en/nomination_process-processus_de_mise_en_candidature.html).
    - A student who has completed the Vanier CGS electronic application through ResearchNet must submit the application online to the Canadian university that will be putting forward their nomination. Applications submitted by candidates directly to the Vanier CGS program, instead of through a Canadian university, will not be considered.

- **Deadline**:
    - **Each university has its own internal application deadline**, which will appear at the top of each page of ResearchNet. For McMaster, this is typically mid-September.
    - Universities must forward their selected nominations to the Vanier CGS program by early November.

- **Additional information**: http://www.vanier.gc.ca/

Additional NSERC Programs

- Aboriginal Ambassadors in the Natural Sciences and Engineering Supplement Program (http://www.nserc-crsng.gc.ca/Students-Etudiants/Aboriginal-Autochtones_eng.asp)
    - The Aboriginal Ambassadors in the Natural Sciences and Engineering Supplement (AANSE) Program promotes interest and participation in natural sciences and engineering, through the visits of Aboriginal students and fellows to Aboriginal communities and schools. NSERC encourages qualified Aboriginal students and fellows to apply for this supplement.

- Canada Graduate Scholarships – Michael Smith Foreign Study Supplements Program (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/CGSForeignStudy-BESCEtudeEtranger_eng.asp)
    - The Canada Graduate Scholarships – Michael Smith Foreign Study Supplements (CGS-MSFSS) Program supports high-calibre Canadian graduate students in building global linkages and international networks through the pursuit of exceptional research experiences at research institutions outside of Canada. You must hold a CGS-M or CGS-D award to apply for this supplement.

- Industrial Postgraduate Scholarships Program (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/IPS-BESII_eng.asp)
    - The Industrial Postgraduate Scholarships (IPS) Program provides financial support for highly qualified science and engineering graduates. The support allows them to gain research experience in industry while undertaking advanced studies in Canada. These scholarships are aimed at encouraging students to consider research careers in industry where they will be able to contribute to strengthening Canadian innovation.

- Summer Programs in Japan or Taiwan (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/JapanTaiwan-JaponTaiwan_eng.asp)
    - The Summer Programs in Japan or Taiwan provide graduate students in science and engineering with a hands-on research experience and an introduction to a different culture, language, and university research system.

Government of Ontario

The Government of Ontario offers scholarships to both domestic and international students.

Ontario Graduate Scholarship (OGS)

- **Value**: $5,000 per term up to a maximum of $15,000.

- **Eligibility**: Applicants must:
    - be full-time graduate students at the master's or doctoral levels
    - have a first-class average (average of 10 in each of the last 2 years of study)

- **Application procedure**:
    - Apply for the relevant NSERC award or submit the individualized form if you are a current NSERC holder.

Ontario Trillium Scholarships (OTS)

- **Value**: at least $40,000 per year, renewable for total funding up to four years
- **Eligibility**: Applicants must:
    - Be an international student who has received a temporary resident visa as a member of the student class under the Immigration and Refugee Protection Act (Canada) on the first day of class;
    - Be intending to pursue full-time graduate studies at an eligible Ontario university at the doctoral level in the subsequent academic year;
    - Hold a first class average in the last two years of study;
    - Not currently be studying at an Ontario postsecondary institution at the undergraduate or graduate level;
    - Not be intending to enroll in a qualifying or make-up year;
    - Not have concurrently accepted a scholarship or fellowship from provincial MTCU (i.e., OGS, QEII-GSST) or, federal Tri-Agency (i.e., CIHR, NSERC, SSHRC);
    - Not have failed to repay all or any part of an unearned Ontario Trillium Scholarship.
- **Application Procedure**:
    - Much of the application work is done by the Department, the student will be informed of any required action
- **Deadline**: Graduate programs will set their own internal deadline, contact the Physics Department for the deadline
- **Additional information**: found here (http://graduate.mcmaster.ca/scholarships-and-funding/major-scholarships-awards/ontario-trillium-scholarship).

Internal Scholarships

McMaster has a list of internal scholarships some of which members of the department of Physics and Astronomy are eligible. These are typically applied for via Mosaic, however some require a recomendation from the chair of the department.

Dawes Memorial Fellowship for Graduate Studies in Physics

- **Value**: $1,200
- **Eligibility**: To be awarded to any full-time graduate student in the Department of Physics and Astronomy
- **Application Procedure**: This award is based on a recommendation needed from the Chair of the Department of Physics and Astronomy. Applications are submitted through Mosaic.

The Desmond G. Burns Graduate Scholarship

- **Value**: $4,000
- **Eligibility**: This scholarship is awarded to students in the Department of Physics and Astronomy.
- **Application Procedure**: This award is based on a recommendation needed from the Chair of the Department of Physics and Astronomy. Applications are submitted through Mosaic.

Frank Dennee Scholarship

- **Value**: $6,000
- **Eligibility**: To be awarded to any full-time graduate student to entering or currently registered Canadian students in the Departments of Engineering Physics or Physics and Astronomy. Preference will be given to graduate students in the area of nuclear science or nuclear engineering.
- **Application Procedure**: This award is based on a recommendation needed from the Departments of Engineering Physics or Physics and Astronomy. Applications are submitted through Mosaic.

Mitacs

- Multiple kinds of scholarships and sources of travel funding. Mitacs has two mandates -- to foster international collaboration, and to connect academics to industry. They pay for international students to come to McMaster, for McMaster students to travel outside Canada for collaborations, and for students to work in industrial settings relevant to their work. There are many programs with various deadlines and various kinds of eligibility. Watch for emails from the associate chair or department chair about opportunities, or go to the Mitacs site at https://www.mitacs.ca/en. In addition, Mitacs offers workshops on campus covering many useful career-building skills that are run by SGS. Watch for those announcements in the SGS weekly or bi-weekly emails.

Travel Specific Awards

Often when travelling to conferences costs can add up. Although you should be checking with your supervisor to have your expenses reimbursed, you will be able to travel more often if you can find external travel support. Below are some useful scholarships

APS FGSA Travel Scholarship

- **Value**: 500 USD
- **Eligibility**: Applicants must:
  - be awarded a member of the APS-FGSA;
  - be attending a conference in the period of eligibility (3 award periods per year 4 months each);

- **Application procedure**:
  - CV
  - Letter of reference
  - Statement of purpose
- **Deadline**: **December/March/June/September 20th**.
- **Additional information**: [1] (https://www.aps.org/units/fgsa/travel/)

McMaster GSA Travel Grant

- **Value** 500 CAD
- **Eligibility** Applicants must
  - Be a student at McMaster (you got this)
- **Application procedure**:
  - CV
  - Letter of reference
  - Statement of purpose
  - Apply via financial aid on Mosaic
  - Submit paperwork in person
- **Deadline**: Early October, February, and June
- **Additional information**: [2] (https://gsamcmaster.org/travel-grants/)

Environmental Related

Canadian Meteorological and Oceanographic Society (CMOS) Scholarship Supplement

- **Value**: $5,000/year for up to two years

- **Eligibility**: Applicants must:
  - be awarded an Canada Graduate Scholarship-Doctoral (CGS-D) or a Postgraduate Scholarship-Doctoral (PGS-D) award;
  - be studying atmospheric or oceanic sciences in a recognized postgraduate program;

- Note: All branches of atmospheric sciences, including hydrology, are acceptable. In the oceanic and limnological sciences, biological research is not accepted, unless it is as an indicator of physical/dynamical/chemical processes.

- **Application procedure**:
  - You must submit the following to CMOS (see address here (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/Supplements-Supplements/Oceanography-Oceanographie_eng.asp)):
    - A copy of your Notification of Award from NSERC
    - A copy of your successful scholarship application
    - A two-page (12-point font) résumé describing your career goals and academic and extracurricular activities that support your interests in meteorological or oceanographic research
    - A statement of endorsement from your research supervisor describing why you are particularly suitable for meteorological or oceanographic research

- **Deadline**: **April 20** of the year in which you are awarded your PGS-D or a CGS-D.

- **Additional information**: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/Supplements-Supplements/Oceanography-Oceanographie_eng.asp

Environment Canada Atmospheric and Meteorological Graduate Supplements

- **Value**: $5,000/year for up to two years
- **Eligibility**: Applicants must:
  - be awarded an Canada Graduate Scholarship-Doctoral (CGS-D) or a Postgraduate Scholarship-Doctoral (PGS-D) award;
  - be studying or planning to study atmospheric or meteorological sciences in a recognized program at a Canadian university.
- **Application procedure**:
  - You must submit the following to the address found here (http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/Supplements-Supplements/Atmospheric-Atmospherique_eng.asp):
    - A copy of your Notification of Award document from NSERC
    - A copy of your successful scholarship application
    - A brief explanation (maximum 300 words) showing how the proposed research will contribute to the advancement of atmospheric or meteorological science
    - Any additional information (e.g., two letters of recommendation).
- **Deadline**: **April 20** of the year in which you are awarded your PGS-D or a CGS-D.
- **Additional information**: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/Supplements-Supplements/Atmospheric-Atmospherique_eng.asp

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Other resources

- See the McMaster School of Graduate Studies (SGS) page on scholarhsips: http://graduate.mcmaster.ca/scholarships-and-funding/major-scholarships-awards

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Downtown

From PAWiki

Location

Downtown Hamilton has a lot of different stuff going on, and has a number of commercial corridors. The main areas of interest are

- James South
- James North
- International Village
- King West
- Jackson Square and Gore Park

Each of these neighbourhoods

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New Students

From PAWiki

Before You Arrive

1. Submit TA preferences form at the beginning of June. See TAing#TA_Assignments for more information.

2. Email your supervisor about which courses they think you should be taking. Also discuss your arrival date in September (plan to be on campus from the Tuesday after Labour Day).

3. You should arrange housing around 2 months before you arrive. It becomes more difficult to find quality housing as September approaches. See Housing and Transportation for more information.

4. Set up email address/mosaic (see Electronic_Mail for instructions) and upload student card picture in Mosaic (instructions (http://registrar.mcmaster.ca/services/id-cards/)).

5. Register for Courses

- All graduate students must finish SGS 101 (Academic Research Integrity and Ethics) and SGS 201 (Accessibility for Ontarians with Disabilities Act Training) within their first month at McMaster.
- If you are not planning on taking any courses in a semester, you need to register for SGS 700.

First Week in September

Grad Orientation Meeting
: Mandatory meeting for all Physics and Astronomy Graduate students (2017: Tuesday September 5 from 9:30-11:30 am in ABB-165).

Departmental Welcome BBQ
: Food (burgers/veggie burgers, salads) included at the Phoenix. Cash bar. (2017: Wednesday September 6).

School Of Graduate Studies
: [1] (https://gs.mcmaster.ca/news-events/event-series/graduate-student-welcome) (various dates/events, 2017: September 5-14)

Institute for Innovation and Excellence in Teaching and Learning
: [2] (https://gs.mcmaster.ca/news-events/events/teaching-and-learning-forum) Workshops and information sessions on teaching and learning for TAs (2017: September 6). Presentation from orientation session here: File:Graduate Student Liaison PowerPoint.pptx

Administrative Tasks (Physics and Astronomy Office ABB 241)
: Visit Tina in main office to receive keys for your office. Bring a $15 deposit per key. Also talk to Tina about setting up Mosaic so that you can easily submit travel expenses.

Safety Training
: All new grad students are required to complete a number of safety & AODA training courses. You register on Mosaic, complete the courses on Avenue, and then send your completion certificates to Tina. She's prepared a helpful PowerPoint presentation to show you what you need to do. File:Required Safety Training.pptx

wifi/internet
: See Your_Computer for connecting your laptop.

Administrative Tasks (Gilmour Hall, GH)

- pick up student card (from Rosemary or Office of the Registrar, GH 108)
- pick up bus pass (Campus Store)
- OSAP financial stuff (Office of Student Financial Aid..., GH 120)
- direct deposit form (http://www.workingatmcmaster.ca/med/document/ee-contact-deposit-form-2007-1-49.pdf%7C) (bring bank information or a cheque)

Access to staff lounge (ABB 273)

- Requires an authorized Working at McMaster Card

Physics and Astronomy Symposium Day
: Students entering their second year of graduate studies in Physics and Astronomy give a 15 minute talk about their research. Attendance of all students is mandatory. Rosemary will be in touch about asking for abstracts etc. closer to the date (2017: October 10 in ABB 136)

Other Things to Consider

Talk to your supervisor about research/coursework/TA balance

There are plenty of ways to stay active and meet new people on campus through intramural sports (http://www.marauders.ca/index.aspx?path=intramurals) for example.

Keep an eye out for fun events off campus (http://www.thespec.com/hamilton-events), such as Supercrawl (http://supercrawl.ca/), The Locke Street Festival (http://www.lockestreetfestival.com/), or the Dundas Cactus Festival (http://dundascactusfestival.ca/)

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Computing

From PAWiki

This section contains information about computing in the Physics and Astronomy department.

Note: RHPCS is mentioned as a useful resource for computing support throughout the following pages. Before contacting RHPCS consult your supervisor to avoid surprise charges to their account. RHPCS charges per email & hour of support, so your supervisor may want to limit the use of RHPCS's services. Your supervisor or other department members may be able to help with your computing issues as well. You can also request administrative privileges from RHPCS if you are comfortable managing your own machine.

Sections

More information

Should you need any more information, please check either the RHPCS website (https://www.rhpcs.mcmaster.ca/), or the Computing FAQ (http://www.physics.mcmaster.ca/computing/FAQ/). If you can't find what you're looking for, feel free to email either someone on the computing committee or RHPCS.

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