

PSGSA Master's Students Insider Report

Made by Masters Students for Masters Students

The Department of Plant Science Master's Student Support Committee has developed the following handbook to outline the rights, responsibilities, and expectations of masters students. The following document is not intended to be a strict set of rules but rather help create and educate students to ensure they have the best academic experience possible during the time spent learning and growing within the Department of Plant Science at the University of Manitoba.

Expectation and Rights of Master's Students

Project Requirements

1. Timely and satisfactory completion of their program requirements, including research, course work, and thesis.
 - Establish deadlines and requirements with your advisor early on to ensure you fully understand the expectations of your work.
 - Maintain frequent communication with your advisor/committee to report progress and results.
2. The right to expect that their research project will not change without their consultation.

Expectations

Advisor or Co-Advisors

- Ensure that you and your advisor have discussed and filled out the Advisor-Student Guidelines form. You and your advisor should fill this document out at the beginning of your project.
 - This form outlines the expected roles and responsibilities of both the student and the advisor, and will allow students to get an understanding of what they can expect from their advisor. This form will always be available to revisit on JUMP.

Graduate student

- Dedicate time and work hard your project and course work to make timely and effective progress to ensure degree completion in a timely fashion
- Seek the advice of your advisor (or co-advisors) regarding appropriate course work, research, thesis proposal, thesis writing, relevant resources and workspace.

- Maintain ongoing contact with your advisor (or co-advisors). It is important that they are aware of:
 - Project and course progress
 - Relationships and work environment in the lab/field
 - Health and family matters that may affect your progress
 - Holiday time
 - Etc.
- Demonstrate appropriate professional judgement, cooperative behaviour, and take your academics seriously
- Become familiar with the policies, procedures, regulations and deadlines established by the University, Faculty of Graduate Studies and the department

If you have any questions or concerns do not hesitate to talk to your fellow lab mates, other grad students, members of Plant Science Master's Student Support Committee or members of the Graduate Studies Committee within the faculty (this includes Martha Blouw). We as graduate students need to stick together!

Work-Life Balance

1. Hours can be flexible depending on your lab or advisor. Typically, as long as you have completed your job in a timely fashion and maintained critical deadlines.
 - Working from office, in the lab, a library, or at home is acceptable.
 - If working on campus after hours, communicate with members of your lab to ensure safety. Additionally, if you are working alone after hours keep doors closed and locked.
2. Students are entitled to observe holidays associated with their religion and shall not normally be required to perform academic activities during the University Closure over Winter Break.
3. Students are entitled to 21 calendar days of holidays where they will not be expected to perform academic activities. Important to discuss with your advisor prior to taking days off.
 - This is over the course of an academic year (September 1 to August 31) or prorated for the portion of the year in which student is registered.
 - Holiday time taken during official University closure (Winter break) is not included as part of the 21 days.
 - Attendance at academic conference is not considered vacation time.
4. Students are not required to perform academic activities on given holidays: New Year's Day, Good Friday, Easter Monday, Victoria Day, Canada Day, Terry Fox Day, Labour Day, and Thanksgiving Day.

Additional Expectations

1. Keep your work space tidy, safe and healthy; show tolerance and respect for the rights of others.
 - Includes: Lab, office space, department vehicles, Grad Lounge, greenhouse space, etc.
2. Attend weekly department and faculty seminars.
 - See emails and postings around the building.
3. Attend department and University events. These are essential to enhance your graduate experience.
 - Includes: Welcome back meetings, holiday parties, seminars, PSGSA events, job fairs, etc.

Committee

Your committee is comprised of your advisor (or co-advisors), a professor (or adjunct professor) from the Department of Plant Science, and a professor (or adjunct professor) from outside of the Department of Plant Science at minimum. In some cases, a student might have two advisors.

1. Committee should meet once every calendar year minimum to discuss progress and complete a progress report to the Faculty of Graduate Studies by June 1st.
 - The student is to prepare a summary 14 days prior to meeting with a presentation to illustrate work completed and future direction.
2. All changes to your project must be approved by the committee.

To find more information regarding Committee Meeting Guidelines refer to the attached link:

[http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/MSC Advisory Committee Meeting Guidelines Jan-26-18 \(2\).pdf](http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/MSC_Advisory_Committee_Meeting_Guidelines_Jan-26-18_(2).pdf)

Course Work

- Course requirements to be determined by you and your advisor at the start of your program
 - All students must register and complete the following courses/tutorials:
 - GRAD 7300 Research Integrity Tutorial
 - GRAD 7500 Academic Integrity Tutorial
 - PLNT 7250 Plant Science Seminar (To be completed in year 2).
- Students are required to maintain a B-average in graduate level courses

Thesis Proposal

1. Student must submit a Thesis Proposal by the first committee meeting or no later than one year from commencement of their program.
 - Submission no later than one week prior to the meeting
2. Proposal consists of a 6-10 page document comprised of several sections.

For the Master's Thesis Proposal Guidelines refer to the attached link:

[http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/MS_C_Thesis_Proposal_Guidelines_Sept_2017_\(2\).pdf](http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/MS_C_Thesis_Proposal_Guidelines_Sept_2017_(2).pdf)

Thesis

Become familiar with thesis writing guidelines in the attached links:

Guidelines:

[http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/Thesis_Guidelines_January_2018_\(2\).pdf](http://umanitoba.ca/faculties/afs/dept/plant_science/media/pdfs/Thesis_Guidelines_January_2018_(2).pdf)

Thesis Toolkit: <https://libguides.lib.umanitoba.ca/thesis>

Suggested Tips

- Use a reference manager.
 - The University of Manitoba has free resources and workshops on Mendeley, which is free.
 - There are other reference managers such as End Note
- Depending on your research you may need to familiarize yourself with various program (Eg. SAS, R, Sigma plot, Python, etc.). Discuss with your advisor for specifics.
- Do not wait until the end of your research to start writing. Your Literature Review can be started whenever and should be regularly worked on and updated.
- Writing can be difficult and draining. When you are at the writing stage, you are not expected to write 8 hours a day. Take breaks!

University of Manitoba and Department of Plant Science Resources

Important Dates and Deadlines

See the following link: <http://umanitoba.ca/registrar/important-dates-deadlines>

Health and Wellness

There are several different resources available to students regarding health and wellness, listed are some good resources you can access.

- Health and dental: <https://umsu.ca/services-and-support/health-dental/>
- Health services (Doctor's office on campus): www.umanitoba.ca/student/health
- Recreation services/ The Active Living Centre: <http://umanitoba.ca/community/sport-recreation/recreation-services>
- Psychological Service Centre (PSC):
https://umanitoba.ca/faculties/arts/departments/psych_services/psc/3639.html
 - Offers free therapy sessions conducted by student psychologists in training. They offer support to all in a safe and confidential setting.
- Student counselling centre:
https://umanitoba.ca/student/counselling/groups_and_seminars.html
 - Offers free groups and workshops that range from frustrating relationships, career development, stress management, sleep habits, etc.
- Sexual Harassment and Violence: http://umanitoba.ca/human_rights/
- Chaplain's Association/Religion resources:
<http://umanitoba.ca/student/resource/chaplains/>

Writing Support

The Faculty of Agricultural and Food Sciences has partnered with Academic Learning Centre to provide a free writing tutor services. Students can meet with the tutor to discuss their writing, to receive feedback on drafts for course work, research proposal and their thesis. You can find tutoring hours, location and additional information through the following link:

<https://umanitoba.ca/faculties/afs/graduatestudies/writingtutorsupport.html>

Travel and Conference Grants

Throughout the course of your project, you may be asked to attend and/or present your research at a conference. This may include: in MB, within Canada or internationally. As a grad student, the cost of accommodations, transportation, and meals are to be covered by your advisor. Any other costs (tourism, souvenirs, entertainment) are not covered. Note that it is encouraged that students apply for travel awards and grants through:

- Faculty of Graduate Studies
https://universityofmanitoba.formstack.com/forms/travel_award
- UMGSA Conference Grants <http://www.umgsa.org/grants-and-awards/>
- Department of Plant Science Travel Awards, there are several awards that are posted annually. Contact Martha Blouw for more information.

Printing, Photocopying, and Scanning

At the beginning of your project, all students will be given a 4 digit code to enable printing services from the Plant Science Office. This code will only work on designated computers and/or from your personal device. John Schoffner (John.Schoffner@umanitoba.ca) can assist with computer-printer set up.

Poster Printing: On campus there is two printing labs which specialize in printing posters. This service is not free, however should be covered by advisor in the case that it is for research purposes. See attached links:

124 Architecture:

http://umanitoba.ca/faculties/architecture/cadlab/cadlab_wide_printing.html

University Centre: <https://dpdc.umsu.ca/>

Graduate Student Office Space and Student Lounge

1. Department of Plant Science have shared student offices. At the beginning of your project you will be assigned an office with a cubical. Keys will be provided by Bev Godard (Bev.Godard@umanitoba.ca). See her for more information regarding office space.
 - Make sure to lock your drawers and doors when you are absent.
 - Always close and lock your office door!!!
2. The Graduate Student Lounge is located adjacent to the main floor offices. Here you can find a small personal mailbox/cupboard for your belongings, a fridge, coffee maker, kettle and microwave and miscellaneous dishware.
 - The general access key opens this door. Please lock the door when exiting.
 - This is a shared space. Please remember to tidy your spot, do your dishes and not leave food in the fridge for an extended period.

Coffee Time

PSGSA puts on a coffee time twice a week September through May in the grad lounge. All are welcome to attend! Coffee is provided... Bring your own mug!

See you on **Monday's at 2:30** and **Thursday's at 10:00** 😊

Graduate Student Committees

1. Plant Science Graduate Student Association (PSGSA)
2. Plant Science Master's Student Support Committee

Plant Science Graduate Student Association (PSGSA)

PSGSA is a group of graduate students (Masters and PhD) responsible for the organization advocating and running services for the grad students in this department. All members are delegated different roles to ensure smooth operation. Throughout the years PSGSA has been responsible for putting on various events which can include; weekly coffee times, an annual symposium, holiday parties, and various social events (paint night, outings around the city, board game nights, etc.). Additionally, PSGSA is the liaison between the department and the students.

PSGSA members are elected yearly in September. All students are welcome and encouraged to be a part of this committee. Below are the roles and responsibilities of each committee members.

1. President

- Lead representative for Plant Science Graduate Student Association, responsible for holding meetings (once a month or as needed).
 - This includes holding a meeting to review this document.
- Liaison with University, our department and other departments (i.e. for faculty events and important information).
- Supervise all positions, ensuring proper responsibility is taken.
- Organize student participation in Annual Plant Science Graduate Student Symposium (held yearly in March/April and is hosted on rotation by University of Saskatchewan, North Dakota State University (Fargo) or by us).
- Apply for grants available such as Faculty of Agriculture Endowment Fund etc.
- One of two persons with signing authority for the PSGSA bank account.

2. Vice-President

- Support president in all duties including social events and professional events such as seminars and workshops.
- Responsible for making decisions, delegating and taking over president's duties when president is unavailable.
- Lead in planning PSGSA workshops and seminars as applicable

3. Treasurer

- One of two persons with signing authority for the PSGSA account.

- Maintain a detailed log of all PSGSA expenditures and deposits.
- Review and approve all expenditures.
- Maintain a small amount of petty cash on-hand, deposit all money taken in at CIBC Fort Richmond.
- Aid president in grant applications including semi-annual GSA Grant application and annual Faculty of Agriculture Endowment Fund.

4. Social Director

- Lead planning of graduate student/departmental activities.
 - Organize monthly student events (which may include but are not limited to BBQs, hub/pub nights, holiday or special occasion potlucks, other interesting activities and events).
 - Ensure coffee is made for coffee time.
- Responsible for sending emails and providing signs/posters for PSGSA events.

5. Department of Plant Science Council Representative/ Seminar Committee Representative

- Along with safety committee representative:
 - Ensure at least one representative attends all departmental meetings.
 - Present student input at departmental meetings.
 - Keep PSGSA committee and grad students informed of departmental issues.
- In addition, the seminar committee representative will:
 - Actively contact Plant Science Department Seminar committee.
 - Attend all committee meetings, and present student input.
 - Regularly update potential speakers list.
 - Ensure grad student participation in seminars.

6. Department of Plant Science Council Representative/ Safety Committee Representative

- Along with seminar committee representative:
 - Ensure at least one representative attends all departmental meetings.
 - Present student input at departmental meetings.
 - Keep PSGSA committee and grad students informed of departmental issues.
- In addition, the safety committee representative will:
 - Attend all safety committee meetings, presenting student input and concerns of safety issues.
 - Keep students informed of general issues and safety decisions/policy changes.
 - Aid in the organization of the annual safety seminar (Typically in May).
 - Attend post-seminar meeting (Typically in June).

7. Graduate Student Association (UMGSA) Representative

- Ensure at least one PSGSA representative attends all GSA monthly meetings.
- Report important issues to PSGSA and students (by email or in person as appropriate).
- Provide PSGSA (President/Treasurer) with updates on GSA Grant deadlines.
- Aid President/Treasurer in GSA Grant application.
- Be a member of at least one UMGSA committee (meetings around once per month).
- Attend consent workshop (once per year).

Do not hesitate to ask any of the current or past PSGSA members for information about the committee or the positions!!!

Plant Science Master's Student Support Committee

Current Student Chair: Madison McCausland (McCausl4@myumanitoba.ca)

This committee was recently created to provide students with support when dealing with the transition to masters student, to ensure students are aware of their rights and responsibilities, and to provide students with a safe environment where they can seek out advice and support regarding various issues. Issues can include, but are not limited to, student- advisor relationships, lab relationships, uncertainties regarding department policies, etc.

The goal of this committee is to discuss any issues, uncertainties and questions that master students might have and may not feel comfortable discussing with their advisor. This committee is made up strictly of masters students and everything shared is to be kept confidential. Unless your safety is at risk the decision to act upon the issue is entirely up to you.

One masters student from each lab (minimum) serves as a representative that will attend semesterly meetings (or when needed) and can serve as the liaison for their lab peers. Students can also contact the Head of the Graduate Students Committee in the department (Claudio.stasolla@umanitoba.ca), the Plant Science Graduate Admin (Martha.blouw@umanitoba.ca), or current student chair, regarding any issues. All disclosures will remain confidential and will not be acted upon unless directed by the student disclosing.

Student comments: Advice for new grad students!

- It's ok to not know what you're doing, most of us don't.
- Do not compare your program progress to fellow MSc students' progress. Some who start after you may finish before you. Every project is different.
- Don't be afraid to say 'no'. Whether it is TAing, catching a seminar or starting a new project – you should always be putting yourself first.
- It's ok to have impostor syndrome, we all experience it. The best thing to do is learn as much as you can and have confidence.
- Back up your files!!!! Anything and everything!
- Take time off.

Email PSGSA president, Bethany (asmundsb@myumaniotba.ca) if you have any advice or comments you would like to include in this document!

The attached article really resided with me at the beginning of my project... It was comforting to know that I was not alone in some of my thoughts! Science and especially research are hard!

The importance of stupidity in scientific research

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I recently saw an old friend for the first time in many years. We had been Ph.D. students at the same time, both studying science, although in different areas. She later dropped out of graduate school, went to Harvard Law School and is now a senior lawyer for a major environmental organization. At some point, the conversation turned to why she had left graduate school. To my utter astonishment, she said it was because it made her feel stupid. After a couple of years of feeling stupid every day, she was ready to do something else.

I had thought of her as one of the brightest people I knew and her subsequent career supports that view. What she said bothered me. I kept thinking about it; sometime the next day, it hit me. Science makes me feel stupid too. It's just that I've gotten used to it. So used to it, in fact, that I actively seek out new opportunities to feel stupid. I wouldn't know what to do without that feeling. I even think it's supposed to be this way. Let me explain.

For almost all of us, one of the reasons that we liked science in high school and college is that we were good at it. That can't be the only reason – fascination with understanding the physical world and an emotional need to discover new things has to enter into it too. But high-school and college science means taking courses, and doing well in courses means getting the right answers on tests. If you know those answers, you do well and get to feel smart.

A Ph.D., in which you have to do a research project, is a whole different thing. For me, it was a daunting task. How could I possibly frame the questions that would lead to significant discoveries; design and interpret an experiment so that the conclusions were absolutely convincing; foresee difficulties and see ways around them, or, failing that, solve them when they occurred? My Ph.D. project was somewhat interdisciplinary and, for a while, whenever I ran into a problem, I pestered the faculty in my department who were experts in the various disciplines that I needed. I remember the day when Henry Taube (who won the Nobel Prize two years later) told me he didn't know how to solve the problem I was having in his area. I was a third-year graduate student and I figured that Taube knew about 1000 times more than I did (conservative estimate). If he didn't have the answer, nobody did.

That's when it hit me: nobody did. That's why it was a research problem. And being *my* research problem, it was up to me to solve. Once I faced that fact, I solved the problem in a couple of days. (It wasn't really very hard; I just had to try a few things.) The crucial lesson was that the scope of things I didn't know wasn't merely vast; it was, for all practical purposes, infinite. That realization, instead of being discouraging, was liberating. If our ignorance is infinite, the only possible course of action is to muddle through as best we can.

I'd like to suggest that our Ph.D. programs often do students a disservice in two ways. First, I don't think students are made to understand how hard it is to do research. And how very, very hard it is to do important research. It's a lot harder than taking even very demanding courses. What makes it difficult is that research is immersion in the unknown. We just don't know what we're doing. We can't be sure whether we're asking the right question or doing the right experiment until we get the answer or the result. Admittedly, science is made harder by competition for grants and space in top journals. But apart from all of that, doing significant research is intrinsically hard and changing departmental, institutional or national policies will not succeed in lessening its intrinsic difficulty.

Second, we don't do a good enough job of teaching our students how to be productively stupid – that is, if we don't feel stupid it means we're not really trying. I'm not talking about 'relative stupidity', in which the other students in the class actually read the material, think about it and ace the exam, whereas you don't. I'm also not talking about bright people who might be working in areas that don't match their talents. Science involves confronting our 'absolute stupidity'. That kind of stupidity is an existential fact, inherent in our efforts to push our way into the unknown. Preliminary and thesis exams have the right idea when the faculty committee pushes until the student starts getting the answers wrong or gives up and says, 'I don't know'. The point of the exam isn't to see if the student gets all the answers right. If they do, it's the faculty who failed the exam. The point is to identify the student's weaknesses, partly to see where they need to invest some effort and partly to see whether the student's knowledge fails at a sufficiently high level that they are ready to take on a research project.

Productive stupidity means being ignorant by choice. Focusing on important questions puts us in the awkward position of being ignorant. One of the beautiful things about science is that it allows us to bumble along, getting it wrong time after time, and feel perfectly fine as long as we learn something each time. No doubt, this can be difficult for students who are accustomed to getting the answers right. No doubt, reasonable levels of confidence and emotional resilience help, but I think scientific education might do more to ease what is a very big transition: from learning what other people once discovered to making your own discoveries. The more comfortable we become with being stupid, the deeper we will wade into the unknown and the more likely we are to make big discoveries.