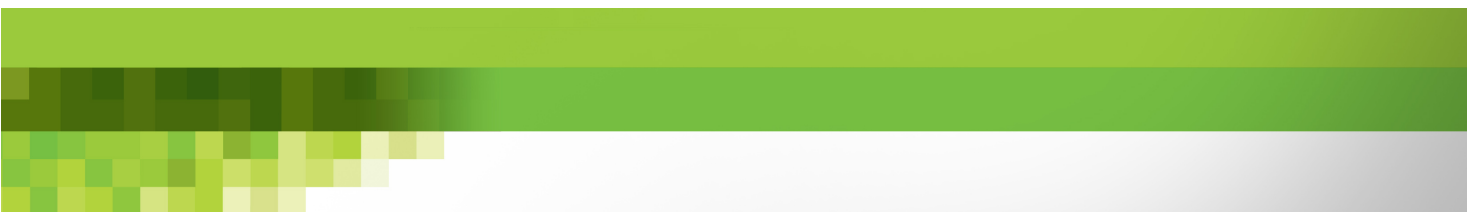




UNIVERSITY OF
SASKATCHEWAN

Department of Plant Sciences
College of Agriculture and Bioresources

Handbook of Procedures for Graduate Students



<https://agbio.usask.ca/departments/plant-sciences.php>

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Academic Procedures for MSc and PhD Students in Plant Sciences

1. Admission

You will find all the information you need to submit the online application for a graduate program in Plant Sciences at: <http://grad.usask.ca/programs/plant-sciences.php#Program>

Application Requirements – at the time an application is created, all required supporting documents are uploaded at: <http://grad.usask.ca/admissions/how-to-apply.php#Applying>

- Application form and \$125.00 CDN application fee for domestic students and \$145.00 CDN application fee for international students
- CV or Resume
- Letter of Intention indicating specific research interests and reasons for wishing to pursue graduate studies in Plant Sciences
- 3 confidential Letters of Recommendation (to be submitted directly from each referee)
- Proof of English proficiency (*international students only*) meeting the **fully qualified score** in **all four testing categories**. The Department requires students meet the standard of English proficiency as the minimum required by CGPS (<https://grad.usask.ca/programs/plant-sciences.php#Admissionrequirements>).
- Official transcripts and degree certificates from all post-secondary educational institutions
- **A confirmed commitment from a faculty member of a research project and funding (to be provided by the potential supervisor)**

Students will be admitted to the College of Graduate and Postdoctoral Studies and Research (CGPS) only upon the recommendation of the Department of Plant Sciences. Recommendations are based on the evaluation of academic ability, availability of an appropriate supervisor, and establishment of suitable financial arrangements. To be admitted into an MSc program, students must have an undergraduate degree comparable to a Bachelor of Science in Agriculture (BSA) from the University of Saskatchewan. To be admitted into a PhD program, students must have an MSc from a university recognized as having standards comparable to those of the University of Saskatchewan. The option to transfer from an MSc program into a PhD program may be possible, but only on the basis a student demonstrates outstanding performance during the first year of the MSc program. The Department discourages University of Saskatchewan undergraduates from taking both their MSc and PhD in this Department.

2. Financial Assistance

It is a College of Agriculture and Bioresources policy that all graduate students must be assured a minimum level of support from the supervisor's research funds and/or awards received by the graduate student. This funding does not constitute a tuition waiver.

The Department guarantees a minimum of two years of funding for MSc students. As of September 1, 2025, the minimum funding rates are \$28,000.00/year. September 1, 2026, the minimum funding rate will increase to \$30,000.00/year. September 1, 2027, the minimum funding rate will increase to \$30,900.00/year. September 1, 2028, the minimum funding rate will increase to \$31,827.00.



The Department guarantees a minimum of four years of funding for PhD students. As of September 1, 2025, the minimum funding rates are \$31,000.00/year. September 1, 2026, the minimum funding rate will increase to \$33,000.00/year. September 1, 2027, the minimum funding rate will increase to \$33,900.00/year. September 1, 2028, the minimum funding rate will increase to \$35,010.00/year.

Any extension of funding will be at the discretion of the Supervisor and will be dependent on the status of the student's progress in their graduate program and the availability of funding. All students are encouraged to apply for scholarships in national competitions, from the College of Agriculture and Bioresources, or the College of Graduate and Postdoctoral Studies and Research.

Should you receive financial support from other sources in addition to the commitment herein, your stipend/scholarship may be reduced such that the total amount of financial support received does not exceed 1.5 times the amount committed in this letter. Please note that you will be responsible for tuition, books and all other fees.

All students are responsible for paying their own tuition costs and student fees.

The receipt of funding through a research stipend or scholarship is contingent upon a student's registration in the College of Graduate and Postdoctoral Studies and Research as a fully qualified, full-time student. Full-time students are expected to work 40 hours per week on their graduate program. International students must hold a valid study permit in order to receive funding. Immigration, Refugees and Citizenship Canada (IRCC) regulations allow international students with a valid study permit to work on or off campus to a maximum of 20 hours per week or full-time during scheduled school breaks, in addition to the 40 hours per week of the graduate program requirement.

The May to August (spring/summer) term is not considered a scheduled break as graduate students are under the continuous registration model. Scheduled breaks include Christmas, the February (spring) and November (fall) breaks, and statutory holidays.

3. **Supervision and Advisory Committee Membership**

Supervision of students during their course of studies is the responsibility of an Advisory Committee. In practice, the day-to-day supervision is carried out by the student's research supervisor who is a member of the Advisory Committee.

- a) **Supervisor** - The Supervisor is generally a faculty member from the Department and a member of the CGPS. In cases where the student wishes to work with a scientist who is not a member of the College, this scientist may be named as Co-supervisor with a member of the Department also named as Co-supervisor. The Supervisor is expected to suggest the composition of the Advisory Committee and, in consultation with the student, recommend a research topic and course requirements. It is the duty of the Supervisor to see that appropriate examinations are arranged and that regular meetings of the Advisory Committee take place.
- b) **Chair** – The Chair of the Advisory Committee will be appointed by the Department's Graduate Program Assistant (GPA) from members of the Department Graduate Student Committee. The Chair will sit on this Committee for the duration of the student's time in program and oversee all Committee meetings including the thesis defence.

- c) **Advisory Committee** - The Advisory Committee should be appointed soon after the student's arrival. Membership will normally be limited to members of the CGPS faculty. In certain cases where qualifications warrant, permission may be obtained from CGPS to appoint a non-graduate faculty member to the Advisory Committee.

The MSc Committee makeup will include, at minimum, the Supervisor(s) plus two members.

The PhD Advisory Committee makeup will include the Supervisor(s), one cognate member, plus two members.

The majority of members on a committee should be PLSC faculty.

The names of the committee members must be emailed to the Department graduate chair for approval prior to the first committee meeting. The role of the graduate chair is to ensure the committee meets CGPS requirements on committee structure and size.

4. **Graduate Student Advisory Committee Meetings**

Graduate students are responsible for scheduling their Advisory Committee meetings. This includes the MSc pre-proposal meeting, MSc/PhD proposal meetings, MSc/ PhD progress meetings and the PhD candidacy exam. The Graduate Program Assistant is responsible for scheduling the MSc/ PhD thesis defenses.

Students must maintain good communication with their supervisor(s) and when it is determined that a meeting is required, the student will communicate with their Advisory Committee members to arrange for a date and time. The GPA will then be notified to arrange the room booking. Once all details of the meeting have been finalized, the student will send an email confirmation and an Outlook calendar invitation to all committee members and the GPA.

Student records will be monitored by the GPA to keep track of student meetings. If a student is delinquent in having a meeting scheduled that is due or overdue, the student and supervisor will receive a reminder from the GPA to schedule this meeting. Following all Advisory Committee meetings, it is important for the supervisor to submit the minutes in a timely manner in order to maintain the students' online record and Department student file with a progress report based on the minutes from the meeting.

- a) **MSc students** - Within the first two to three months in program, the student will meet with the Advisory Committee (*formerly MSc Entrance Interview*) to select the initial coursework and present a Pre-Proposal, a brief synopsis of the proposed research. The student will receive feedback from the committee during the meeting, and the student will then prepare a full research proposal to be presented to the committee for approval at a later date.
- b) **MSc and PhD students** - A full proposal meeting is usually held six to nine months after entering the program. To facilitate the review process, the student must submit the proposal to their research supervisor for comments and approval before distributing it to the other Advisory Committee members. Failure to provide the proposal **at least one week** prior to the meeting could result in cancellation of the meeting. Upon approval of the full proposal, the project title, and Committee membership will be put forward to the Department Graduate Student Committee for approval. The Advisory Committee will approve program coursework, and the selected courses will be entered in **Degree Works** as the official **Program Planner**.



The student and Advisory Committee will meet **at least once a year** to review the student's progress. To facilitate these reviews, the student will submit a written progress report to the Supervisor and all members of the Advisory Committee. The progress report and any other documents to be discussed at the meeting must be provided to the Advisory Committee **at least one week** prior to the meeting. Generally, the Committee requires the student to give an oral progress report to further explain and describe the research progress. The Committee may recommend changes/additions to the student's program and changes to the research project. The Supervisor will then prepare minutes of the meeting to be submitted to the CGPS as a Progress Report. A copy of the report will be placed in the student's file.

Following the completion of the research project and all academic course work, the Advisory Committee will hold a **Permission to Write (PTW) meeting** with the student. The objective of the PTW meeting is to determine whether sufficient data have been collected for the degree in question, the objectives of the research have been met, and to ensure that the data are of sound quality and the results are defensible.

The student will provide a report to the committee at least two weeks in advance of the meeting. The report will include the following, as a minimum:

1. Proposed Table of Contents for the thesis.
2. Introduction, hypotheses, objectives, methods, results, data analysis and presentation of data (tables and/or figures) for key research objectives, along with some synthesis, discussion and conclusions. The student should address whether the research hypotheses were accepted or rejected.

To make the report more complete, the student may include a detailed literature review section. A presentation of the report is recommended.

An agreed upon timetable to program completion needs to be included in the PTW meeting minutes. A preliminary list of potential External Examiners is to be included in the minutes.

5. **PLSC graduate student learning outcomes**

As a new graduate student, it is important for you to know what is required to successfully complete your degree. The following is a list of learning outcomes which together define the success of your graduate degree. Not only will your committee evaluate your thesis in the context of this list, but you should also use this to reflect on your own learning experience. PLSC recognizes that not all graduate projects are designed with the same career pathways, for example in academia or industry. As such, one should endeavor to attain most outcomes indicated below, as some may be accentuated while others may not be applicable to a particular thesis. In the same light, additional project-specific learning outcomes may be defined by the advisory committee.

- Demonstrate a breadth (MSc, PhD) and depth (PhD) of fundamental knowledge within the selected plant science discipline(s), as directed by the graduate committee selected for the student.



- Interpret, use, and critically evaluate existing literature and research within the selected plant science discipline(s).
- Apply the scientific method to address research questions within the selected plant science discipline(s). This may involve designing and carrying out robust research experiments, collecting and processing samples, managing datasets, statistical analysis and interpretation of data.
- MSc project design may be assigned.
- PhD project design should for the most part be led by student and guided by the advisory committee.

The thesis should encompass the body of the student's work carried out to address their research question(s). This may include field, laboratory, growth chamber and/or greenhouse trials— the structure is flexible. Importantly, all experiments must be scientifically sound, adequately address the research question(s), and are doable in a timely manner (i.e., 2-2.5-yr timeline for MSc students; 3.5-4-yr

- Communicate ideas, issues, methodology and research findings clearly and effectively to specialist and general audiences both in spoken and written form.
- Defend the research and logically respond to questions.
- Develop a written thesis and ideally produce peer-reviewed scientific publication(s), and/or patents.
- Teaching or mentoring experience is desirable (e.g. teaching assistant or guest lectures).
- Collaborate/network with advisors and a team of peers/other highly qualified personnel in national and/or international plant sciences settings.

6. **Program Requirements** (see *Program Milestones, Appendix 1*)

- a) **MSc** is a thesis degree program involving work on a specific research project. The MSc student is required to maintain continuous registration in PLSC 994 Research for the duration of the graduate program. The *expected* duration for time in program to completion is *two years*. Course requirements are for a *minimum* of nine (9) credit units of courses at the 800 level in addition to the PLSC 990 Seminar course and the GPS 960 Ethics and Integrity course. The Advisory Committee may determine if more courses are required if the student is lacking in the appropriate academic background. Undergraduate level courses may be added to a program in addition to the minimum graduate level course requirement.
- b) **PhD** is a thesis degree program involving work on a specific research project. The PhD student is required to maintain continuous registration in PLSC 996 Research for the duration of the graduate program. The *expected* duration for time in program to completion is *three years*. Course requirements are for a *minimum* of six (6) credit units of courses at the 800 level in addition to the PLSC 990 Seminar course and the GPS 960 Ethics and Integrity course. The Advisory Committee may determine if more courses are required if the student is lacking in the appropriate academic background. Undergraduate level courses may be added to a program in addition to the minimum graduate level course requirement.
- c) **PhD Transfer** – students transferring from an MSc to PhD program must complete a total of fifteen (15) credit units of courses at the 800 level. This includes the nine (9) credit units of courses taken at the MSc level prior to the transfer.

Milestones to demonstrate these learning outcomes include:

Coursework (9 credit units for MSc and 6 credit units for PhD; Minimum grade 60% for MSc and 70% for PhD, with overall course average for both MSc/PhD no less than 70%)

Proposal writing (pre- and full-proposal meetings)

Presentations (dept. seminar series, conferences, progress and permission-to-write committee meetings)

Oral defense (thesis defense)

Written thesis (and ideally peer-reviewed publication(s))

7. Seminars

Students must register for PLSC 990 from the start of their graduate program until they have fulfilled all the requirements and receive credit for the course. Participation is mandatory.

8. Ethics Course

The GPS 960, Introduction to Ethics and Integrity Course, is a mandatory, ethics course for *ALL* first year graduate students and must be successfully completed in the **FIRST** term. The purpose of this course is to discuss ethical issues that graduate students face during their time at the University. All students will complete modules dealing with integrity and scholarships, graduate student-supervisor relationships, conflict of interest, conflict resolution and intellectual property and credit. The course will be included on the student's academic record. This is an internet-based course, and students register through PAWS. The Course Reference Number (CRN) is listed under the subject menu on the Course Offerings Search page as Graduate Studies and Research. Deadlines to register are the same as for all other courses.

9. Academic Integrity / Academic Misconduct Processes

Integrity is expected of all students in their academic work - class participation, examinations, assignments, research, practicums - and in their non-academic interactions and activities as well.

What academic integrity means for students

- Perform your own work unless specifically instructed otherwise. Check with your instructor about whether collaboration or assistance from others is permitted.
- Use your own work to complete assignments and exams. If you are including work, you have done previously, be sure to identify that work so it is clear what new work you are presenting.
- Follow examination rules.
- Cite the source when quoting or paraphrasing someone else's work. Discuss with your professor if you have any questions about whether sources require citation.
- Discuss with your professor if you are using the same material for assignments in two different courses.
- Be truthful on all university forms.
- Use the same standard of honesty with fellow students, lab instructors, teaching assistants, sessional instructors and administrative staff as you do with faculty.



Integrity in non-academic activities - Misconduct that disrupts the activities of the university or harms the legitimate interests of the university community could be the cause for non-academic disciplinary action.

Academic misconduct defined - Academic Misconduct is the term the university uses to describe cheating. Types of cheating are listed in the **Student Academic Misconduct Regulations** of University Council, <https://governance.usask.ca/student-conduct-appeals/academic-misconduct.php>

There is an onus on every student to become informed about academic misconduct.

a) **Informal procedure**

Sometimes misconduct is the result of carelessness, misunderstanding of the rules, or miscommunication. The instructor should discuss the matter with the student informally, where possible. The instructor is to consult with the college's academic administrator to determine whether an informal resolution would be appropriate in the circumstances. If it is determined to be appropriate and the student concedes the misconduct, the instructor has the authority to impose one or both of the following penalties:

- Reduce the grade on the assignment or exam by a percentage appropriate to the degree of the academic misconduct, to as low as zero.
- Require the student to rewrite the assignment or exam.

A student who disagrees with the allegation of cheating or with the suggested penalty may request a formal hearing. An informal resolution of academic misconduct is recorded on a form signed by the student and the instructor that is then kept by the student's college for at least five years or until the student completes their degree program. Prior informal resolutions are used to determine if a subsequent offense should go to a formal hearing.

b) **Formal procedure**

For more serious misconduct, or in cases where the student disputes the allegation or the penalty, a college hearing board will hear the matter. Procedures for hearings are described in the Regulations. The hearing board has the authority to impose sanctions if the student is found to have committed academic misconduct, such as:

- reprimand or censure the student,
- reduce the grade on the assignment, exam, or entire course, to as low as zero,
- require the student to rewrite the assignment or exam,
- require the student to submit an essay or a presentation on academic misconduct,
- suspend or expel the student, and
- postpone, deny or revoke the student degree, diploma or certificate

A penalty imposed by a hearing board is reported to the students' college and to the university, and becomes part of the student's record. A finding of misconduct in research funded by an external agency is reported to that agency. Further appeal of a hearing board decision or penalty is permitted only on grounds of lack of jurisdiction, bias, substantial procedural error or new evidence.

https://secretariat.usask.ca/documents/student-conduct-appeals/process_revised_2017.pdf

c) **Generative AI Policy**

Generative AI tools are permitted in graduate student work for improving writing (syntax, flow), and for helping with code, and other routine activities, but is not allowed for creating content, writing the thesis, or writing scientific manuscripts. Improper use of GenAI tools will be considered academic misconduct. The use of GenAI in graduate course work will be at the discretion of the instructor and students are encouraged to review the syllabus for each course and discuss use of GenAI with the instructor. Any use of GenAI should be noted in the Acknowledgements section of the graduate student thesis.

10. **Examinations**

The scheduling and format of all examinations is the responsibility of the Department. Examinations may differ from those given in other departments, but must meet the general regulations of the CGPS. Oral examinations are intended to determine the level of the student's factual knowledge and the extent to which that knowledge can be applied to problem solving. Students will be evaluated by the quality of answers they give. Students who, in the majority opinion of the Examining Committee, have a sufficiently high level of knowledge and a sufficient ability to apply that knowledge will be judged satisfactory; those who are deficient in knowledge or weak at application will be judged unsatisfactory.

- a) **PhD Candidacy Exam** – The purpose of this exam is to determine whether the student has a mature and substantive grasp of the field as a whole. It covers a broad aspect of the appropriate disciplines and is used as a means of judging whether the student has adequate knowledge in the field of research and can apply this knowledge to problem solving. This exam will come after the course work has been completed and prior to 24 months of initial registration. For students who transfer from a master's to a doctoral program, the assessment will occur within 36 months of initial registration. The Supervisor, in consultation with the Committee Chair, will assign areas of questions to each member of the Examining Committee. The student should have at least 60 days' notice of the areas of questioning prior to the exam. The exam may be repeated once with the permission of the Disciplinary Committee of the CGPS.
- b) **MSc Thesis Defence** - The student is responsible for providing sufficient copies of the final thesis to all Advisory Committee members for review in order to receive permission to proceed with scheduling of the thesis defence. The evaluation of the written thesis and the oral examination of the student are carried out by an Examining Committee consisting of the Advisory Committee and an Arms-length Examiner selected by the Advisory Committee. If possible, the Arms-length Examiner should be a member of the Graduate Faculty or University academic community. Notice of the MSc thesis examination must be given to the CGPS a minimum of two weeks prior to the scheduled defence. The defence will include a 25-30 minute seminar presentation by the student and will be followed by the oral thesis examination. The student will be asked general questions on all aspects of plant sciences as well as those specific to their thesis. The Examining Committee will determine if the thesis is satisfactory in form and content and if the student's defence was satisfactory.

- c) **PhD Thesis Defence** - The student is responsible for providing sufficient copies (hard copy or electronic) of the final thesis to all Advisory Committee members for review. Once the Committee has determined the thesis is ready to proceed with the defence examination, a Memo to Schedule a Defence is submitted to the CGPS via the CGPS Service Desk. CGPS sends the thesis and defence documents to the chair and external examiner.

The Ph.D. dissertation examining committee consists of at least six members:

- **Chair (non-voting)** - Graduate Chair, Head, Dean/Executive Director (non-departmentalized colleges/schools) or designate.

- **The Supervisor (Co-supervisor, if applicable)**

- **Additional members (from advisory committee)**

- **Cognate member (from advisory committee)**

- **University examiner** - Approved by the Graduate Chair, Head, Dean/Executive Director (non-departmentalized colleges/schools) or designate using the criteria below. The university examiner has an “arm’s length” relationship with the Ph.D. dissertation research. The supervisor will provide them with a copy of the thesis.

Will:

- Be a member of the faculty of the CGPS (Adjunct Professors included, but cannot be a Professional Affiliate);
- Normally have a Ph.D. degree or equivalent;
- Have suitable knowledge in the general field of dissertation research;
- Ideally, have previous experience supervising or examining doctoral students.

Will not:

- Have been directly involved in the candidate’s Ph.D. dissertation research;
- Have served on the candidate’s Ph.D. advisory committee;
- Be related (e.g., family, partner) to the candidate or supervisor.

May:

- Be from within or outside the academic unit of the candidate and supervisor(s), provided the arm’s length criteria noted above are met;
- Have taught the candidate in classes and interacted in other ways not directly related to the dissertation research.

External examiner

Approved by the Associate Dean, CGPS. The external examiner will have an “arm’s-length” relationship with the student, the supervisor and members of the advisory committee.

KEY CHANGE: *While the external examiner still cannot have collaborated with the supervisor or student in scholarly activities during the past 6 years, the restriction no longer applies to the relationship between the external examiner and other members of the advisory/examining committee.*

A CV of the first choice for External Examiner and the student’s thesis will be submitted with the Memo. The Examining Committee will consist of the Department Head, Supervisor, University examiner, External examiner and the Advisory Committee.



Notice of the PhD thesis examination must be given to the CGPS a **minimum of five weeks prior** to the scheduled defence. The defence will include a 25-30 minute seminar by the student and will be followed by an oral examination. The Examining Committee will determine if the thesis is satisfactory in form and content and if the student's defence was satisfactory.

- d) **Transfer from a MSc to a PhD Program** - In cases where a student is enrolled in a MSc program, where outstanding academic and research performance is evident, consideration may be given to transfer to a PhD program. Transfer from an MSc program to a PhD program shall take place after the end of the first year and no later than the end of the second year in the program. Recommendation to transfer must be initiated through a formal meeting of the student's Advisory Committee, which will forward its recommendation through the academic unit to the CGPS.

The following conditions must be met:

- The student shows great promise both in terms of academic accomplishments and in potential for research.
- The student has completed at least 9 credit units at the 800-level, and has achieved a minimum average of 80% and no grade below 70%.
- There is evidence of excellent writing and oral communication ability.
- There is evidence the student has requisite research skills and knowledge to be able to successfully complete a PhD dissertation.
- The supervisor has sufficient funding in place to support the student through a PhD degree.

Students transferring from MSc to PhD:

- Must complete at least 6 credit units at the 800-level, in addition to the 9 credit units at the 800-level completed prior to transferring.
 - Are encouraged to continue attending PLSC 990; they are not required to complete further assignments, as long as they have submitted the required three pieces of scientific communication to Dr. Bett, and were registered in PLSC 990 for at least four terms.

11. **Other Training**

At the start of the graduate program and at the earliest intake date available, students are required to take two safety courses, **Safety Orientation for Employees** and **Laboratory Safety**. The student's Supervisor may also recommend other courses beneficial to a student's particular needs (*Safety* channel in PAWS). In addition, students are responsible for making themselves aware of any health and safety issues relevant to their particular workplace. Students are responsible for seeing that no hazards are created to themselves, to others, or to any property through unsafe use of chemicals and equipment. The Supervisor of each student is responsible for seeing that the student understands the risks involved in use of materials both in the laboratory and in the field. A student must not work alone after normal working hours if carrying out a potentially hazardous experiment such as working with toxic, volatile or radioactive chemicals, or working with equipment such as tractors and combines. Students who carelessly endanger life or property will be severely reprimanded.



Non-credit courses and workshops, professional skills development, critical thinking and teaching strategies are available to graduate students through the Gwenna Moss Centre for Teaching Effectiveness: Graduate Student and Postdoc Teaching <https://teaching.usask.ca/teaching-support/graduate-teaching.php#CoursesandWorkshops>.

12. **Final Year in Program and Extensions**

The Time in Program set by the CGPS allows for the MSc program to be completed in four years and the PhD program to be completed in six years. If the student is at the end of year **three** in the MSc program, or five in the PhD program, and entering into their final year in Time in Program, CGPS policy requires a “*Schedule for Completion*” of the graduate program to be developed by the student and the Advisory Committee prior to the start of the final year of study. The format of the “*Schedule of Completion*” should be submitted as a Progress Report. Requests for time extension should specifically address the question of why the “*Schedule of Completion*” was not followed. Students requesting an extension to time in program must complete the Request for Extension to Time in Program Form. The request must be approved by the student’s supervisor and Advisory Committee and the Department Graduate Chair. The department can approve an extension of one year. Further extensions must be approved by CGPS. A student on extension to Time in Program is expected to be working full-time on the graduate program in order to complete requirements as soon as possible.

13. **Steps in Preparing for Thesis Defence**

- a) Thesis requirements are outlined in the Graduate Calendar and the Graduate Student Handbook. Students are advised to familiarize themselves with these requirements. The supervisor will guide the student regarding progress, thesis preparation and publication, and should discuss this at the outset of the Program of Studies. It is expected that the student’s research will result in publishable data. For published papers, or papers submitted for publication which follow a common theme, the student will be the first author on all publications used in the thesis. A draft manuscript should be completed as soon as the experimental work and analysis are completed, but in no case later than six months after the submission of the thesis, after which time first authorship may be assigned to the person drafting and submitting the manuscript for publication. Typically, general introduction and general discussion, and general conclusion sections will be written so that the thesis forms a body of work constituting an integrated whole.
- b) Once the research work is completed and the thesis outline prepared by the student, the Advisory Committee must meet with the student to consider the adequacy of the research, review the thesis outline (proposed table of contents), and consider possible candidates to serve as the external examiner. The Committee can then grant the student ‘permission to write’.
<https://cgps.usask.ca/onboarding/grad-toolkit/about-the-roadmaps.php#iconbookTheThesisRoadmap>
- c) Once the thesis is completed to the satisfaction of the Supervisor(s), the final version (including any recommended revisions and editing) is to be distributed to all members of the Advisory Committee. Committee members will then indicate whether they are of the opinion that the thesis is ready for release to an External Examiner. When selecting an appropriate individual to serve in this role, the CGPS requires that the External Examiner have an arm’s-length relationship



to both the Supervisor and the student. The Supervisor should check with the selected External Examiner to assure willingness to serve and to secure a date for examination.

For the MSc defence, one copy of the final thesis will be sent to the Arms-Length Examiner by the GPA. For the PhD defence, one electronic copy of the final thesis is submitted to the CGPS. CGPD will then forward a copy to the External Examiner. **In both instances, the student must NOT make contact with the External Examiner**

- d) For both an MSc and PhD thesis examination, once all Advisory Committee members indicate the thesis is ready for defence, the Department will submit a Memo to Schedule a Defence to the CGPS via the CGPS Service Desk indicating the proposed Examining Committee and the selected External Examiner. For a PhD thesis examination, the Department must also submit a CV for the proposed External Examiner.
- The CGPS provides reimbursement to a maximum of \$2,000 for travel expenses incurred by the External Examiner for a PhD defence. The matter of covering any additional expenses must be discussed with the Department Head prior to submission of the Memo.

14. **Procedures Following Thesis Defence**

Students should submit their Application to Graduate. This can be submitted prior to the defence. Following a successful defence and completion of all recommended revisions to the thesis:

- a) The student is required to submit an Electronic Thesis or Dissertation (ETD) to the CGPS site <http://etd.usask.ca>. The ETD procedure is as follows:
- Convert final approved version thesis or dissertation to Adobe PDF
 - Go to ETD website <https://etd.usask.ca>
 - Log in using the username NSID@mail.usask.ca and password
 - Enter fields with biographical information
 - Attach PDF of thesis
 - Click on “submit” button and wait for “Approved” email
- If a thesis is formatted correctly, the student will receive an automated “approved” email (this is also sent to the Advisory Committee members email addresses). If there are issues that need to be addressed, the student will receive an email stating fixes required.
- b) Students are also required to upload a completed and signed [GPS 404 – Final Thesis Confirmation Form](#) along with their thesis on the ETD site.
- b) Students hold copyright to their thesis. They are expected to include in the front of their thesis a statement in paragraph form granting permission to use the thesis under specifically stated conditions and indicting the address of the position, department, or college to which requests for such permission should be sent.
- c) The student and Supervisor are required to retain copies of the raw research data for a period of seven years following completion of the degree.



15. **Intellectual Property Rights**

Intellectual property is the term used to describe the creative results of research and scholarly activity which may have immediate realizable value or value upon further development and commercial use or production. It may take various forms, such as patentable discoveries and inventions, copyrightable works (books, painting, photographs, computing software, graphics, etc.) non-patentable technical know-how and trade secrets. University faculty and staff assign intellectual property ownership rights to the University on appointment. The Department of Plant Sciences applies the same principle to graduate students. By definition, within the terms of external funding, any Intellectual Property (IP) rights remain with the University.



General Information for Graduate Students in Plant Sciences

1. Safety and Emergency Regulations

a) *Fire* - In the event of a fire;

- Pull an alarm station **AND** dial 9-911 (from a campus phone) or 911 from a cell phone.
Give details of fire - Building, Room number, et cetera.
- Dial 5555 (from a campus phone or 306-966-5555 from a cell phone) to alert campus personnel.
- Meet firefighters at nearest entrance and direct them to fire.
If the fire alarm sounds (more than ten seconds), you must leave the building immediately.
- Leave in an orderly fashion by the CLOSEST SAFE EXIT.
- OBEY THE FIRE MARSHALLS (Lists posted on bulletin boards).
- DO NOT USE ELEVATORS.
- Leave all DOORS CLOSED BUT NOT LOCKED.
- TEACHING STAFF are responsible for the evacuation of all students in their class/lab at the time of an alarm.
- Assist HANDICAPPED PERSONS to evacuate. If not possible, wait with them until firefighters arrive.
- If evacuation is impossible, WAIT IN A ROOM THAT HAS A WINDOW AND IS CLOSE TO A STAIRWELL.
- DO NOT RE-ENTER THE BUILDING until permission has been given by the Fire Department, the Chief Marshall or the Vice-Marshall.

b) *Accidents* - In the case of a serious accident where someone can be in danger from bleeding or respiratory failure, it is important to get them to the Emergency Department either by private car or ambulance (phone 9-911 from a campus phone or 911 from a cell phone). If the victim is at risk through movement (broken bones, internal injuries), keep the victim warm until arrival of qualified medical personnel (phone 9-911 from a campus phone or 911 from a cell phone).

All accidents involving injury must be reported immediately to the Head of the Department. First aid kits are available in the Mail Room (Agriculture 4D26), the Coffee Room (Agriculture 4D38) and in various laboratories (see up-to-date list on the Health and Safety bulletin board in the hallway beside main office).

2. Keys

Keys, as required and as approved by the Department Head, may be ordered through the Department Main Office. Keys are stamped with a personal identification number and must not be loaned to other users. All keys (including mail key) must be returned to the General Office on completion of studies in order to clear the University's security record for the student. File cabinet keys should be left in the student's office. Students should leave a forwarding address when they leave.

3. **Space Allocation for Students**

- a) **Office space** - Graduate students are assigned an office for up to two and one-half years (MSc) or four years (PhD). In the case of an MSc student transferring to a PhD program, one additional year of assigned office space will be provided (five years). After that, students are provided with access to shared office space (scramble format) in Agriculture 4D03 and have a locked filing cabinet (2nd floor) for a maximum of 12 months. After that point, the Department no longer guarantees access to office space. Lockers may be available in the Agriculture Building through application to the Dean's office.
- b) **Laboratory space and equipment** – The field and greenhouse research areas are considered laboratory space and are subject to the same general regulations as laboratory and phytotron space in the Agriculture Building, the Crop Science Field Laboratory, the Horticulture Field Laboratory and the Kernen Crop Research Farm. All space and equipment is property of the University of Saskatchewan, but is not available for general usage without specific permission, scheduling and supervision. Students must arrange for the use of laboratory space and equipment, including vehicles, through their Supervisor. The Supervisor will make necessary arrangements (including financial) with the laboratory supervisor, the Growth Facility Committee, the Phytotron Manager, the Field Experiments Committee, or the Horticulture Field Experiments Committee. Requests for field space must be made early to facilitate evaluation by the Committees and assignment by the Field Superintendent. The Field Superintendent is responsible for allocation of all field research equipment.

Students using field and growth facilities are responsible for arranging control of weeds, insects and rodents. The use of pesticides and herbicides in growth chambers and greenhouses must be approved by the Chair of the Growth Facilities Committee or of the Field Experiments Committee and applied only by qualified staff. All users must clean laboratory space, growth rooms, storage areas, etc. during and after use.

Students cannot expect assistance from department technical staff or summer students. They are encouraged to share work with other students for their mutual advantage.

4. **Graduate Student Administrative Services, Telephones, Faxes, Email and Supplies**

The Graduate Student Administration Office, Agriculture 2D14, is one of two offices of contact for graduate students in Plant Sciences. The Department **GPA** is located here. This office will be the main contact area for any information or administrative assistance required relating to the actual graduate program. The scheduling of all examinations and defences, as well as all data entry and updates for each student's graduate file will be done through this office

Upon arrival in the Department and at the initial start of a graduate program, all students will check in with this office to obtain a Stipend Letter the funding amount to be provided, and information pertaining to taxes and deductions. International students are required to provide a copy of their study permit and should apply for a Social Insurance Number (SIN) in order to receive employment funding. A copy of the SIN must then be provided to the Graduate Student Administration Office.

The Plant Sciences General Office, Agriculture 4D36, is where the Department **Operations Assistant** is located. This office will be the main area of contact for inquiries of a more general nature, considered non-program related, such as office assignments, ordering of keys, picking up mail and acquiring a

photocopy account. Graduate students requiring approval for travel to scientific meetings and conferences must complete an *Authority to Travel* and *Travel Expense Claim* form and have these forms approved through this office. Students must provide their own stationery/office supplies and postage for correspondence. Students may use the Campus mail system for on-campus correspondence.

The Supervisor will cover the costs for photocopying required for research purposes only. Students should obtain a user code in order to access one of the Department's copy machines (Agriculture 4D87 or 2C31). Copy totals will be recorded every three months and charged back to the Supervisor's research account. For access to copiers outside of the Department, copy cards may be purchased at the Main Library and the Place Riel Kiosk.

Students are responsible for all costs relating to preparation of all copies of preliminary and final drafts of their thesis (including photographs and photocopying), and all binding expenses.

Long distance telephone charges cannot be accepted by the Department. Students should not use staff telephones and should not direct calls to staff telephones.

5. **Computer Laboratory Facilities, Access and Printing**

All graduate students have access to the Department Graduate Student Computer Lab, Agriculture 4C75. Students will log on to the computers using their NSID and password, making sure to sign out and log off at the completion of each session.

The computers in the lab have been modified in order to protect the software settings from being improperly configured. These computers are mainly for use by Plant Sciences graduate students. However, technicians, post-doctoral fellows, etc. may also have access with their supervisor's permission if they do not have access to another computer, i.e. in their research lab or office. Access will only be given if the computers are required for work related use. Access will not be given to those whose only computer need is to read email or to "surf the net". These computers are not intended for use by people outside of the Department, including families of staff and students. The College of Agriculture maintains undergraduate computer laboratories (IBM in Agriculture 2D15 and 3D67, and MAC in Agriculture 3D85) to which graduate students may be given access. Accounts can be purchased on a yearly basis from Place Riel.

Most students make use of software for statistical analysis (SAS on the University computer; or MiniTab on the University computer, in the College laboratory and in the Departmental laboratory) and for word processing (MS Word in the College and Departmental laboratories). The Department does not offer any formal training in any of these software programs. Training is available through ICT Services (<http://www.usask.ca/ict/>).

Students are expected to abide by rules established for the various computing facilities. Failure to do so will result in withdrawal of computing privileges. Most facilities will have rules governing security of the equipment, prohibiting food or drink, and honouring software copyrights.

6. **Library and Reading Room Facilities**

Each student should obtain a library card and abide by current regulations for the University library system.

Students should be aware that library facilities at the Agriculture & Agri-Food Canada Research Station and the Plant Biotechnology Institute (both on campus) may provide access to journals or books that are not available in the University system.

The Department does not house a library. However, a student Reading Room in Agriculture 4D27 is available for all students for study purposes.

Important library links:

- Library homepage: <https://library.usask.ca/>
You can get to the library homepage from here or you can find a link on your PAWS page.
- Department of Plant Sciences research guide: <https://libguides.usask.ca/plantscience>
This guide lists a host of library resources pertaining to plant sciences.
- Grad Help: <https://libguides.usask.ca/gradhelp>
This guide brings together resources on topics such as student/supervisor relationships, the thesis/dissertation process, publishing, and more.
- Grad Research Support Workshops:
Throughout the academic year, the library presents workshops specifically focusing on graduate students' research needs and Grad Writing Workshops. Check this page to keep up to date on up-coming sessions.
<https://library.usask.ca/studentlearning/workshops/index.php#top>

Throughout the academic year, the library presents workshops specifically concentrating on graduate writing. Check this page to keep up to date on up-coming sessions.

7. **Travel Assistance for Attendance at Scientific Conferences**

It is the policy of the Department that students should be encouraged to attend at least one scientific conference during their study. The Department has some funds to support such activity. A student may formally request up to \$500 in travel assistance when presenting a poster or talk at a scientific conference. Supervisors may have funds that can be used to support student attendance at conferences, meetings or field days. For a group of students attending a scientific conference, the Department may be able to assist in group transportation.

8. **Vacation Time**

Graduate Students are not normally required to work on a fixed schedule. They are expected to conduct themselves in a professional manner with diligence and self-discipline. They may be required to observe fixed schedules when working with other employees in lab or field research. Students are eligible for a minimum of 15 days of vacation per year, excluding weekends, statutory holidays, and regularly scheduled University holidays (Christmas break). Students must work out vacation schedules with their supervisors.

9. **Use of Department Lounges**

Students are invited to use the Department Lounges (Agriculture 4D38 and 2C25) for breaks and lunches, and are encouraged to use the lounges to meet with staff and students at these times. Supplies (tea, coffee, milk and sugar) are to be paid for by individual users. Please make sure that equipment is used in a safe and proper manner. If using the Lounge outside of normal break hours (10:00-10:30 a.m., 12:00-1:00 p.m., and 3:00-3:30 p.m.) please be considerate of others and keep the volume of conversation down. Users must clean up after themselves and turn off equipment after each use. Users must also contribute their share to cleaning the cupboards, microwaves and the refrigerator.

10. **The Graduate Students' Association**

The University of Saskatchewan Graduate Students' Association (GSA) is a not-for-profit organization that represents over 4000 graduate students at the University of Saskatchewan. The GSA provides professional, academic, and social activities and services, and promotes awareness of issues relevant to graduate students. All graduate students at the University of Saskatchewan are members of the GSA and thus have the right to vote in elections, referenda and at general meetings. The general membership is the highest decision-making body of the GSA.

The GSA has donated funding to the University Emergency Crisis Aid program to best support graduate students when they are faced with a crisis or extenuating circumstances and are in need of urgent aid. Students experiencing emergency situations may contact the Graduate Students' Association for support.

Graduate students are encouraged to participate in the Plant Sciences Graduate Student Association and in Departmental social events.

11. **General Information**

Students should be aware of the no-smoking policy that applies to ALL University buildings.

Each student must show consideration for other students and staff when using community facilities (lounges, mail boxes, reading room, computer room, laboratories). Time should be taken to clean space used and assure that equipment is turned off or left on according to circumstances.

Students should pick up their mail regularly or arrange for someone else to do it for them. They should also check department bulletin boards regularly for current notices.

Parking on campus is controlled by the University Parking Office. Some parking is set aside for graduate students for allocation before undergraduate students return for fall courses.

Information on academic regulations and regulations for preparation and submission of theses is available through the CGPS General Office. Most regulations and graduate student checklists are available at: <http://www.usask.ca/cgps/>

Graduate students may view the *CGPS Policy and Procedures Manual* online at: <https://cgps.usask.ca/policy-and-procedure/index.php>



Appendix 1 - Program Milestones

