UNIVERSITY OF SASKATCHEWAN

Policies and Procedures

Graduate Programs in the Department of

Anatomy, Physiology, and Pharmacology

University of Saskatchewan

* This version of the handbook was updated in September 2024 and supersedes all previous versions.

Revisions since 2021

September 2024: 1) moved "How to apply…" section to Appendix A, and changed subsequent lettered sections; 2) in response to CGPS policy changes, removed qualifying exam, but maintained guidance information for MSc-to-PhD transfers, and modified the comprehensive exam format to create the newly-required candidacy exam (sections 4&5); 3) added references to CGPS GradHub resources (section 1), CGPS courses for incoming international students (section 1), and Professional Skills (section 3.D.2); 4) updated expectations of Permission to Write (PTW) document for student to explain thoroughly any new data generated since the previous AC meeting (Appendix B.4.4.d); 5) declared limitations regarding work that is extramural to graduate program activities (i.e., outside student jobs not towards completion of thesis; sections 1&6); 6) added statement on AI usage (section 2); 7) removed references to legacy grad programs (ACB, Phys/Pharm); 8) added expected timeline for completing a written thesis after receiving PTW, as well as consequences of any failure to adhere to this timeline (section 3.E.4).

April 2023: 1) updates to section 7 to reflect the new fundings opportunities from CGPS for graduate students. Note that some of these details remain in flux at the time of this revision. Contact the graduate chairs if further information is required.

March 2023: 1) added information about MD/PhD program (section 2); 2) revised information related to the primary role of AC Chair being administrative (section 3.C.2); 3) updated time in program (before needing to request extension) for MSc to four years (section 9); and 4) added FAQ on "What do I do if I have a problem with my supervisor and/or advisory committee member(s)?" (FAQ section A7)

January 2023: 1) revised information timeline for grad students, modifying objectives for first (select AC) and four months (approve coursework and brief thesis project overview) in program (section 4.B,C and switched order of appendix A.1&2); 2) added that students should fill out the Progress Form with accomplishments since the APP grad program began (section 4.D and appendix A.3); and 3) modified instructions about progress report, emphasizing expected structure of general overview, followed by presentation and analyses of previous year's data (appendix A.3).

September 2022: 1) removed outdated BSc/MSc program information (section 2.1 and associated mentions); 2) modified Advisory Committee (section 3.C) to clarify our requirements compared to those of CGPS; 3) modified Examining Committee (section 4.E.4-8) to reflect CGPS changes enacted May 2022; and 4) updated Permission to Write report format (appendix A4) to provide a better overview of student's progress.

January 2022: 1) updated 990 presentation information (section 3.A.6); and 2) added academic misconduct information (section 3.A.11)

October 2021: 1) updated descriptions of Advisory Committee selection (section 3.C); and 2) updated Comprehensive Exam information to more clearly align goals of two different formats (section 6.B)

ANATOMY, PHYSIOLOGY, AND PHARMACOLOGY GRADUATE STUDENT HANDBOOK

1. Introduction

Welcome to graduate studies in the Department of Anatomy, Physiology, and Pharmacology (APP)!

The purpose of this handbook is to provide you with basic information on the services available to you in your graduate program, as well as the duties and requirements that you will need to fulfill to complete your graduate degree in the Department of Anatomy, Physiology, and Pharmacology (APP) of the University of Saskatchewan (USask). The Department offers MSc and PhD graduate programs and has faculty and students with diverse research interests in the life sciences. You are expected to gain a detailed understanding of your area of research. Our graduate program consists of independent research as well as didactic work involving academic courses and reading of relevant literature. The didactic component is intended to provide a knowledge framework upon which your research is based. Nevertheless, your efforts in research training and preparation in your area of specialization are of paramount importance. In addition, every effort is made in the department to prepare you to teach and communicate scientific information.

The APP Graduate Committee develops policy and administers the graduate program. Immediate oversight for each student is provided by a faculty Supervisor and a faculty Advisory Committee. Direct financial support to graduate students is derived from a variety of sources (see Section 6) in the form of a stipend that is meant to enable students to spend a full time equivalent (1xFTE) of effort on research and developing the professional skills of a biomedical scientist or related health professional. If you choose to earn additional income outside of your duties as an APP graduate student (i.e., wages from a TAship or other job), then you should seek approval from your Supervisor. Moreover, the APP program limits such outside work activity to no more than a total of 20 hours per week (i.e., ~0.5xFTE). Any deviations from this limit will need to be resolved by the APP Graduate Committee (see Section 6 for more details).

All aspects of APP graduate programs, including conferral of degrees, are ultimately governed by the College of Graduate and Postdoctoral Studies (CGPS), which sets or approves the policies and procedures that departments follow. CGPS Policies and Procedures Manual can be found at: https://cgps.usask.ca/policy-and-procedure/index.php. In addition, there are numerous useful resources for new and continuing grad students at the CGPS GradHub (https://cgps.usask.ca/onboarding/index.php), so please thoroughly check out the information there. International students should speak with their supervisors about taking the free course "Academic Preparation for International Graduate Students" (GSR 981, https://catalogue.usask.ca/GPS-981?utm_source=paws&utm_medium=email&utm_campaign=httpscgpsusaskcautm_sourcecgps-newsletterutm_mediumemailutm_idnovember-newsletter#top). In addition to providing information on expectations of students within the Canadian academic environment, GSR 981 also touches upon some Canadian cultural norms, and international students often make friends with other international students taking the course.

After you are accepted into the CGPS, you will need to register with USask and pay your tuition and fees. Complete information is available at the CGPS website (https://grad.usask.ca/admissions/after-youve-applied.php) Students in the MSc program need to register for APPY 994 and APPY 990. Students in the PhD program need to register for APPY 996 and APPY 990. You will need to register for additional courses throughout your graduate program according to your Program of Studies (see sections 3B and 3C below). If you have any disabilities that might impact your success in the APP graduate program (including coursework and/or labwork), then there is support at USask for graduate students requiring accommodations. You will first need to register with Access and Equity Services (https://students.usask.ca/health/centres/access-equity-services.php), and they will work with you to build accommodations. Upon your arrival at USask, you should meet with the APP Graduate Administrator (app.grad@usask.ca), who will help you get settled in the Department.

2. Who is involved in my graduate program?

In addition to yourself, your graduate program involves your research Supervisor, your Advisory Committee members, the Department Graduate Chair(s), the Department Graduate Administrator, and staff in CGPS. As a graduate student at USask, you are enrolled in CGPS, but your graduate program is administered at the

Department level, which operates within the regulations provided by CGPS.

A. Your role as a graduate student

You are responsible for the success of your program, although your Supervisor, research Advisory Committee, the Graduate Chair(s), and the Graduate Administrator will be available to help with problems. Graduate students are specifically responsible for the following:

1. demonstrating a commitment to research through diligent and conscientious lab and/or field work;
2. maintaining a spirit of collegiality with peers, laboratory co-workers, and faculty;
3. adherence to University regulations concerning work safety, biosafety, ethical treatment of research animals, and Academic Integrity (see https://cgps.usask.ca/policy-and-procedure/conduct-discipline/academic-integrity.php);
4. timely registration for courses and payment of fees owing;
5. maintaining of appropriate academic performance (minimum 75% GPA in coursework);
6. attending and participating in the departmental seminar series (APPY 990). APPY 990 provides an interactive learning experience for our grad students to increase their oral presentation skills. All MSc students will give a 20-minute presentation once a year in the first two years of their MSc program. All PhD students will give a 20-minute presentation two of their first three years of their PhD program and a 45 min job talk after they receive Permission to Write. Apart from presentations, all students are required to register, participate, and submit student evaluations for 990 every year;
7. in consultation with your Supervisor, establish members of your Advisory Committee and arrange Advisory Committee meetings (minimum once/year) (see FAQ *How do I set up a committee meeting?*);
8. seeking advice from members of your Advisory Committee where appropriate;
9. timely submission of scholarship applications/renewals and awareness/attendance to the stipend funding periods;
10. timely submission of research proposal, annual progress reports, manuscripts, thesis, etc.;
11. avoiding any examples of academic misconduct. The APP Grad Program has zero tolerance for plagiarism or other instances of academic misconduct, which may be grounds for expulsion from the program. For the USask policy that we follow, please see https://governance.usask.ca/student-conduct-appeals/academic-misconduct.php. In addition, artificial intelligence (AI) can be used to refine concepts and correct grammar, but it is not acceptable to use AI to generate course assignments, manuscripts, or theses. If AI is used, then the program used and purpose of use should be clearly explained. Please refer for more information to the USask AI guidelines at https://leadership.usask.ca/initiatives/ai/index.php.

B. Your Supervisor's role

The Supervisor is responsible for providing supportive advice and discussions about the research, assistance with research design, and for timely review of research proposals, manuscripts, and thesis drafts. Supervisors are also required to provide sufficient resources to ensure that your research proceeds as effectively as possible. These resources include research operating funds, and access to research space and equipment as necessary. Additional clarification of roles can be achieved by filling out the Student-Supervisor Agreement (Appendix C) and filing it along with your Program of Studies.

C. The roles of Advisory Committee members

The guiding principle underlying the Advisory Committee is that the student needs sustained advice from the beginning of their program if they are to move expeditiously and constructively through the program requirements. The Advisory Committee meets at least once each year to review and assess student progress and to offer advice. However, students are encouraged to arrange more frequent meetings and/or to contact individual members of their committee whenever they need assistance. The Advisory Committee also plays an important role in assessing student performance in Candidacy Examinations and Thesis Defenses.

The Advisory Committee consists of the following members (minimum of 3 for MSc, 5 for PhD), which should be selected through discussions among the Supervisor and student (and Graduate Chair(s), if desired), based upon ability of the selected researchers to effectively assist the student with research design, background, methods, and analysis. (Note that, compared to CGPS requirements, APP requires an additional faculty member to serve on the Advisory Committee.)

1. Supervisor - a member of the faculty of the CGPS (adjunct professors included). Any number of Co-Supervisors are counted as one member.
2. Advisory Committee Chair – a designate of the Department Graduate Chair(s) who leads all meetings, serving as a primarily administrative figure, but also potentially engaging with development and critique of the student's thesis and progress to some extent. This member may or may not be involved with questioning during the thesis defense, according to the arrangements with the student. They must be APP faculty, typically a senior member of the committee familiar with graduate student policies. The Department Graduate Chair(s) can designate an Advisory Committee Chair anytime throughout the program of studies.
3. Additional Members - a minimum of 1 (for MSc) or 2 (for PhD) faculty members or Associate Members of APP. They must be members of the graduate faculty of CGPS, adjunct professors, or professional affiliates.
4. Cognate Member – a minimum of one for a PhD program. The cognate member cannot be a regular faculty member of APP (so Associate Members are ok), but must be a member of the graduate faculty of CGPS or else granted permission by the Dean, CGPS.

D. Graduate Chair(s)

The Graduate Chair(s) offers advice and information regarding Department and CGPS regulations to ensure consistency among Advisory Committees and among students within the Department. The Graduate Chair(s) should be viewed as an advocate for the student and should be the first person that the student consults should problems arise that cannot be resolved with the Supervisor and/or committee members. On an administrative level, the Graduate Chair(s) or their designate is responsible for ensuring chairing and recording the minutes for all student advisory meetings and candidacy exams. The Graduate Chair(s) also oversees administrative aspects of scholarship and stipend awards/distribution, graduate course offerings, TAships, and APPY 990. At the university level, the Graduate Chair(s) acts as liaison between the Department and CGPS.

E. Graduate Administrator

The Graduate Administrator acts as the graduate student resource person, providing advice and guidance on procedures related to the Department, the graduate program, and CGPS requirements. The Graduate Admininstrator is responsible for helping to schedule meetings, exams/defenses, and for maintaining and submitting appropriate paperwork to CGPS, including theses and relevant information regarding scholarships. They can be contacted via email at app.grad@usask.ca.

F. Graduate Committee

The Graduate Committee meets as necessary to make decisions regarding the Department's graduate program, including decisions on scholarship competitions. In some cases, decisions made by the Graduate Committee are submitted for approval to Department faculty. Members of the Graduate Committee include the Graduate Chair(s), the Graduate Administrator, three or four other Department faculty members, and two Student Representatives (ideally one MSc and one PhD student).

3. Information for students in the MSc or PhD Programs

A. Program Objectives

The primary responsibility of the Department of APP toward its graduate students is the provision of an environment that fosters scholarly development and experience that will enable gainful employment or

continued training at an advanced stage. Additionally, the Department has the responsibility of ensuring that its graduates will reflect credit upon the Department and on the University. Below you will find specific student objectives for the graduate programs offered in the Department of APP. A general description of learning outcomes are found in the CGPS policy and procedure documents (https://cgps.usask.ca/policy-and-procedure/governance-membership/degree-level-learning-outcomes.php).

1. *MSc Student objectives:*

The overarching goal of the MSc program is to ensure that students are exposed to the scientific method and procedures/skills important in producing and publishing novel scientific information. Although publication at this level is not mandatory, demonstration of knowledge and skills necessary to take an experimental question to publication must be evident. To meet this goal, MSc students should:

I. Develop a generalized knowledge base sufficient for designing, conducting, analyzing, and reporting of scientific experiments surrounding a well-defined experimental question/hypothesis.
II. Obtain practical experience in laboratory skills necessary to address the proposed experimental questions/hypotheses.
III. Develop proficiency in the collection, analysis, and presentation of data to aid in final publication.
IV. Acquire experience with oral presentation of scientific information sufficient to enable preparation and delivery of reports or presentations at scientific meetings.

2. *PhD Student objectives:*

In addition to meeting the main goal and specific objectives of the MSc program stated above, the major goal of the PhD program is to develop students into trained problem-solvers. This will include the development of a broadened knowledge base beyond their primary research focus and a mature understanding of the process of scientific inquiry sufficient to enable the assessment and constructive criticism of the work of others. Publication of at least one first-authored paper in a reputable, peer-reviewed journal is strongly recommended for completion of the PhD degree. Given an experimental question in any scientific field, a PhD student should be able to:

I. Find relevant information to create/rationalize a hypothesis that will address the experimental question.
II. Seek out relevant information/resources concerning methodology necessary to adequately test the hypothesis.
III. Design, perform, and overcome/circumvent problems associated with experimentation.
IV. Analyze, interpret, and discuss the results in the context of the current literature leading to publication.
V. Obtain familiarity with the process of scientific reporting sufficient to enable the independent preparation of manuscripts for journals, applications for research grants, and technical reports.

B. Within the first month of starting your program

1. You and your Supervisor should meet to decide on your Advisory Committee members and identify some of the academic courses you feel that you need. Departmental course requirements for the MSc program are 9 credits at the graduate level. Additional courses can be taken from any academic unit on campus as deemed appropriate to the students' specific program of studies. Students entering the PhD program directly with a completed Master's degree or transferring from the MSc program require an additional 3 credits at the graduate level. Any student may be required to take additional course work if the Advisory Committee deems it appropriate.
2. Coursework will include:
   - A list of academic courses that fulfill the credit requirements for your program and are relevant to your thesis project and/or career objectives.
   - Graduate Research (APPY 994 for MSc or 996 for PhD) and Graduate Seminar (APPY 990) courses. See section 3.A.6 for details of APPY 990, which provides an interactive learning experience for our grad students to increase their oral presentation skills.
   - Additional requirements, such as Introduction to Ethics and Integrity (GPS 960) and UCACS

Education and Training Program (Ethics and Integrity in Human Research GPS 961; Ethics and Integrity in Animal Research GPS 962).

- Laboratory Safety, Biosafety, Radiation Safety and Ethics courses, as required.
- Students may also elect to complete non-credit courses offered by the CGPS, such as Academic Preparation for International Graduate Students (GPS 981); Graduate Professional Skills (GPS 974); Thinking Critically: Professional Skills for Global Citizens (GPS 984); or Introduction to University Teaching (GPS 989). A full list of courses is available at https://catalogue.usask.ca. These courses have no credit or fees, but require registration. Registration in these courses is limited to current graduate students in a degree program and graduate students are encouraged to participate in these courses. The courses will appear on students' official transcripts.

C. Within the first 4 months of starting your program

1. Write a very brief research proposal (see Appendix B.1: FAQ, *what should I include in a research proposal?).*
2. Prepare you first APP Grad Progress Form (see Appendix E, but use updated form on https://medicine.usask.ca/students/graduate-programs/anatomy-physiology-and-pharmacology.php#GeneralInformation). On the form, check the Program of Studies box and, among other blanks that you should complete, list courses required for your individualized research program and ethics courses/approvals. Instead of writing a progress report at the end of the form, include your brief research proposal.
3. Arrange and hold your first advisory committee meeting, the main objective of which is to have your Program of Studies approved by your committee (see Appendix B.2: FAQ *How do I set up a committee meeting*?). Email the form to your Advisory Committee members a week prior to the meeting. At this meeting, the committee will provide advice on coursework, but you should briefly discuss your proposed research, sometimes with a brief oral presentation. With committee approval, the form is submitted to the Graduate Chair and Graduate Administrator, who will submit it to CGPS.

D. Each year of your program:

1. Maintain your registration in the program, pay tuition and fees.
2. Call an Advisory Committee meeting. It is a requirement of your graduate program to have at least one Advisory Committee meeting each year (typically in May/June). Call extra Advisory Committee meetings as deemed necessary. It is the responsibility of the student and the Supervisor to call the meeting (see FAQ *How do I set up a committee meeting*?). At least **5 working days** prior to meeting, provide your Advisory Committee and the Graduate Assistant with an APP Grad Progress Form (see Appendix E, but use updated form on https://medicine.usask.ca/students/graduate-programs/anatomy-physiology-and-pharmacology.php#GeneralInformation) (Also see *FAQ: What should I include on my annual progress report?).* The Supervisor should review the form, including the written progress report (last section of form), before it is submitted to your committee. ***Include on the form all progress since your entry into the APP program*** (previous accomplishments can be listed on the form, but need to be clearly marked that they were before you started your grad program). At this meeting, you will normally be expected to give a short (*e.g.,* 20 min) presentation on your research progress. This presentation should provide a brief overview of your research but should focus on those issues that require input from your committee members. Remember that your committee members have already received and reviewed your progress report.

   Your Advisory Committee should provide good advice to the best of their abilities on your career options, whether that be in academic, clinical, biotechnology, or other settings. To learn formally how you can apply many of the skills that you learned during your thesis in APP, CGPS offers a few ways to develop your professional skills. There are a series of self-help modules online (https://sites.usask.ca/cgps-professional-skills/), and also Professional Skills courses (GPS 974 and GPS 984; https://teaching.usask.ca/events/graduate/grad-pro-skills.php#Aboutthiscourse) that might benefit your career objectives. In addition, other career development tools available that might help:
   a) Aurora, part of the CGPS Beyond the Professorate (**https://cgps.usask.ca/onboarding/grad-toolkit/career-exploration-tool.php**),
   b) Mitacs (**https://www.mitacs.ca/our-programs/training-students-postdocs/**), or
   c) adMare (https://www.admarebio.com/en/talent) has some more industry-related training for grad students

E. In the final year of your program (see https://cgps.usask.ca/policy-and-procedure/Academics/defence.php)

1. Call a Permission-to-Write meeting. The purpose of the Permission-to-Write meeting is to survey the structure and content of the thesis as a unified piece of work. The Advisory Committee needs to be provided with a standard Permission-to-Write document and APP Grad Progress Form at least **5 working days** before the meeting. The Supervisor should review the Permission-to-Write document and progress form before they are submitted to your Advisory Committee. For details on what to include in the document, see FAQ: *What should I include in my Permission to Write report?* At the meeting, you will normally be expected to give a short (less than 20 min) presentation on the proposed structure and content of your thesis, and then answer questions from the Advisory Committee.
2. After PhD students have received "Permission to Write", they need to work with the APPY 990 course coordinator to schedule a "job talk" presentation of ~45 minutes. This talk should emphasize their career path and future career goals, specifically highlighting how their grad student experience has set them up to succeed in their future career. This needs to happen prior to the defense of the PhD thesis and ***does not apply to MSc students***.
3. Write your thesis (see FAQ: *How should I format my thesis*? and the CGPS website https://cgps.usask.ca/onboarding/thesis-roadmap/thesis-roadmap.php) and review recent theses from the Department available through CGPS (https://harvest.usask.ca/handle/10388/381).
4. Students that do not show appropriate progress after receiving Permission to Write are still liable for expulsion from the APP Graduate Program at the discretion of the Supervisor and the Graduate Chair(s). In particular, any student that does not complete a written thesis for review by their Supervisor within 6 months of receiving Permission to Write will be required to have an Advisory Committee meeting to discuss their progress and any limitations. Students that still do not have a completed written thesis for review by their Supervisor within 1 year of receiving Permission to Write will be referred to CGPS for removal from the APP program.
5. Once your Supervisor has provided feedback on the written thesis and has approved it, the document is submitted to Advisory Committee members for reading and approval. Please allow the Committee at least 2 weeks for MSc and 4 weeks for PhD to review the thesis. This interaction is also an appropriate time to finalize discussion of who will be the potential External Examiners (see #5 below) for the defense.
6. External Examiners participate in the examination of theses to provide an assessment of the quality of the graduate research that is independent from the Advisory Committee. The student will not have any formal or informal communication with the External Examiner until the date of the defense. For an MSc defense, the External Examiner is called an "Arm's length examiner" and can be any faculty member at USask (even within APP, if deemed appropriate) with relevant background to evaluate the thesis. This MSc External Examiner is approved by the APP Grad Chair. For a PhD defense, the External Examiner with relevant background to evaluate the thesis needs to be from outside USask, as per CGPS guidelines, and is approved by CGPS.
7. After feedback from Advisory Committee members (written and/or verbal) has been incorporated into the thesis, and each Committee member has individually advised the Committee chair that the thesis has met their approval*, the thesis needs to be submitted to the Graduate Administrator, who will manage the thesis for the defense. (*CGPS requires a majority of the Committee to recommend approval, but APP recommends all Committee members approve before moving forward to defense.) At this point, the Graduate Administrator also needs to know the list of potential External Examiners for the defense (ranked #1-2 for MSc; ranked #1-3 for PhD), as approved by the Advisory Committee. Importantly, the defense can be scheduled no sooner than 2 weeks after the External Examiner for an MSc student has received the thesis and no sooner than 4 weeks after the External Examiner (and University Examiner, see #7 below) for a PhD student has received the thesis, giving the external examiner sufficient time to read the thesis before the defense.
8. For PhD defenses of students who began the program after May 2022, the Graduate Administrator will also select someone from APP (including Associate Members) on a rotating basis, preferring those with relevant expertise, to serve as the University Examiner, who serves as an additional "outside" member of the Examining Committee. APP recommends that University Examiners should only ask questions or participate in the defense when other members of the Examining Committee need their help or if the University Examiner feels something important is missing from the defense questioning or discussion.
9. Defend the thesis. On the day of their defense, students will give a brief (less than 20 min) summary of their thesis. This presentation is open to anyone. After their presentation, the Examining Committee convenes with the student for the oral defense of the thesis. The oral defense can be open to the public,

or can be closed, including only the student, Advisory Committee members and the External Examiner. Open defenses are encouraged, but the decision to have an open or closed defense lies with the student. PhD defenses will have someone act as the Graduate Chair designate for the Examining Committee Chair. This is officially a non-voting position, so we implement the following. The Advisory Committee Chair runs the defense, and then when votes for the thesis go around, any of the AC members who agrees with the majority assumes this position (removing his/her vote) and signs the appropriate paperwork as Examining Committee Chair.

10. After successful defense of the thesis, students should be prepared to edit the final version of the thesis as directed by the Examination Committee. The normal recommendation is to allow either 2 or 6 weeks for the student to make the appropriate changes to the thesis. For full list of potential outcomes, consult CGPS guidelines.
11. Once the recommendations of the thesis Examining Committee have been met and the final version is approved by the Supervisor, students who have met all other graduate program requirements must apply to graduate online through their PAWS account, on or before the second week in April to receive their degree at Spring Convocation, and on or before the third week in September to receive their degree at Fall Convocation. Students are responsible for ensuring the final copies of the electronic thesis submitted to the CGPS and members of their Advisory Committee meet all regulations as posted on the CGPS website (see https://cgps.usask.ca/onboarding/grad-toolkit/roadmaps/project-roadmap/submitting.php). Of note, if the thesis contains information that the Supervisor does not want published yet (e.g., sensitive data needed for publication), then the student needs to ensure they check the box for an "embargo" of public release of the thesis on harvest.usask.ca. Generally, the student should work closely with their Advisory Committee and with the Graduate Administrator in order to ensure all necessary documents have been received in APP and in the CGPS office. Following the thesis defense, students will receive a *Convocation Checklist*. Students are strongly advised to pay close attention to this useful information.
12. Graduate!

4. Transfer from the MSc program to the PhD program

Transfer from the MSc program to the PhD program should take place after the end of the first year and is not permitted later than the end of the second year in the program. According to current eligibility rules for many scholarships, any transfer occurring after the first completed year of the MSc actually penalizes the student's eligibility for these scholarships, so this should be considered. (Students lose eligibility for any time that passes after the 1 year mark, since any transfer students only receive a 1-year extension of scholarship eligibility after they transfer, regardless of how long they have been in the MSc program.)

Recommendation to transfer from an MSc program to a PhD program requires approval of the student's Advisory Committee, so a meeting should be held to evaluate and grant approval, keeping in mind that the decision of the student and the Supervisor to support transfer carries a lot of weight. Generally, the student should show great promise in terms of academic accomplishments and potential for research, not only demonstrating sufficient general scientific knowledge, but also familiarity with the scientific literature in his or her area of interest, and suitability for study at the PhD level. Specifically, the following conditions should be met:

A. The student has completed at least 9 credit units and has achieved a high-academic standing (>80% GPA) in these 9 credit units.
B. There is evidence of good writing and oral communication ability.
C. There is evidence the student has requisite research skills and knowledge to be able to successfully complete a PhD dissertation.

Once permission to transfer is given, a new Advisory Committee should be formed, and a new Program of Studies meeting should be scheduled.

5. Candidacy Examination

Students in the APP MSc program are not required to take a Candidacy Examination.

A. Summary of the process and timeline

In principle, the APP Candidacy Examination is a PhD proposal defense with examination on additional areas of APP (topics in biomedical sciences; see section 5.C below), seeking to determine whether the student has a mature and substantive grasp of the specific thesis topic and related fields as a whole. The Candidacy Examination requires students to communicate ideas from a) their primary thesis project at a graduate level and b) a selected list of contemporary topics in biomedical sciences (see below) at an advanced undergraduate level, such as the level taught in ACB325 (Advanced Cell Biology) or NEUR404 (Advances in Neurophysiology and Neuropharmacology). A combination of writing and oral formats is used to help the student learn how to write a scientific document, while also testing a range of knowledge in the thesis project and some biomedical topics embedded within the written document itself. Any questions regarding the Candidacy Examination that remain after reading this handbook should be directed to the Graduate Chair(s).

Within two years (24 months) of entrance into the APP PhD program, students are required to pass a Candidacy Examination. If there are extenuating circumstances, a student can request extensions to this time for Advisory Committee approval. The examination should be conducted after all course work has been completed and research is well underway. To prepare and submit the written document, as well as study for the Candidacy Examination, the student will have at least 5 weeks during which they do not have to do any lab work. If there are extenuating circumstances, a student can request extensions to this time for Advisory Committee approval. Any student who feels that their Supervisor is forcing them to do any labwork during this 5 week period should immediately notify the Graduate Chair(s). The Candidacy Examination should be scheduled at least **5 working days** after the written document was submitted to the examining panel (this is the last of the 5 weeks where students can be free of labwork).

The Candidacy Examination will be given by the Advisory Committee and/or additional Examiners at the discretion of the Advisory Committee. The examining panel will be chaired by the Chair of the Advisory Committee. In addition to the student's Supervisor(s), additional Examiners will be chosen as appropriate for the selected topics. These Examiners should be members of the student's Advisory Committee, but any member can be replaced by another member with a better background on the specific biomedical topics (see below) chosen for the exam. Regular members of the student's Advisory Committee that are not Examiners are still required to attend the Candidacy Examination. At the start of the Candidacy Examination, the student is required to present a brief (15 minute) summary of the written document. After this, each Examiner will have up to 15 minutes in each of two rounds of questions. In addition to any assigned biomedical topic, each Examiner will assess the written document and oral presentation on such features as the logical flow of ideas, scientific methodology, experimental design, hypothesis formulation and testing, and statistical analysis. If the student is unclear what the Examiner is asking, then the student should ask for clarification.

Following the Candidacy Examination meeting, the examining panel assigns a grade of Fail, Pass, or Excellent for the written and oral components. Specifically, a Fail would indicate that the student did not communicate ideas from their specific thesis proposal at a graduate level, or from the list of contemporary topics in biomedical sciences at an advanced undergraduate level. In the event of a failure, the student must retake the Candidacy Examination in those aspects where performance is judged to be inadequate. Specifically, if the student failed the thesis proposal portion, then this is a serious issue. The entire written document would need to be re-written, and the second examination would be evaluated even more critically than the first. If the student failed one or more of the biomedical topic sections, then the second examination would only focus on that/those topics. The second attempt must take place within three months following the first examination. In the event of a second failure to demonstrate the required knowledge in all topics tested, the student will be required to discontinue and exit the PhD program.

B. Writing of the Candidacy Examination document

The student will write a grant or review paper summarizing their PhD research proposal and defend it in front of their Advisory Committee (i.e., face an oral exam). The student should choose the format of the

written document in consultation with their Supervisor. If the grant option is selected, then it will be completed in the format of an NSERC Discovery Grant application: Research Summary (2 pages double-spaced), Research Proposal (10 pages double-spaced), and Budget (2 pages double-spaced). If the review paper format is selected, then it should be completed in the general format of a *Trends in…* journal article (e.g., *Trends in Cell Biology*; see https://www.cell.com/trends). Specifically, the review paper format will be 14-20 double-spaced pages (excluding title page, figures, and references), including several specific sub-sections encompassing critical background information. The hypothesis and detailed objectives to be tested in the thesis project should comprise at least 3 double-spaced pages. (The hypothesis and detailed objectives will likely be removed prior to submission of the paper to a journal.) Either submitted document should contain ~40-60 references. Again, the focus of evaluation for either format of the written document will be on whether the student presents 1) a clear thesis proposal (hypothesis and objectives/tests of hypothesis) at the level of a graduate student, and 2) a clear understanding of 3 biomedical topics at the level of an undergraduate student.

Before the 5-week period begins, where the student can be free of labwork activities (see section 5.A above), the student will submit to the Advisory Committee 3 potential biomedical topics (see list below) that will be incorporated into the thesis proposal. Upon approval of these topics, the Advisory Committee will assign an Examiner for each of the topics, although each Examiner can ask questions on other topics at the actual Candidacy Examination. ***If the Examiner desires***, each Examiner can suggest no more than 5 (total) review papers and/or book chapters that might help the student prepare the written document and/or focus on specific questions of the selected biomedical topics. However, any delays to the student receiving these specific papers/chapters would delay the onset of the 5-week period. Examiners can exceed the reading assignment maxima only with permission of the Advisory Committee. Alternatively, each Examiner can opt to ask questions on the assigned biomedical topics based upon papers that the student has already independently incorporated into their written document.

During preparation of the written document, the student should consult the Supervisor primarily, but also Advisory Committee members, other assigned Examiners, or even the Graduate Chair, on the art of scientific writing. Specifically, these people need to help the student to understand the key components of an effective grant proposal or review paper. However, no direct input on the written document is allowed from any faculty members. For example, the student should be directed to examples of well-written successful NSERC Discovery Grants (e.g., via USask's Discovery Grant repository). Please consider submitting example review paper formats to the Graduate Administrator, so that future students can use them similarly in preparation for the Candidacy Examination.

C. Biomedical topic list

All students will be examined on their area of research specialization.

Approved additional contemporary biomedical topics to select from:

experimental design/statistics	molecular biology	cell biology
neuroscience	imaging	anatomy
developmental biology	evolutionary biology	pharmacology
physiology	genetics	

Students also have the option of proposing an *ad hoc* topic, subject to Advisory Committee approval.

6. Information on scholarships and graduate student stipend funding

Stipend funding is provided for graduate students in the APP program. In agreement with CGPS policy (section 7.1.1: https://cgps.usask.ca/policy-and-procedure/Academics/Registration.php#71REGISTRATION), the APP Graduate Program considers graduate students to be a full-time equivalent (1xFTE) of effort. The purpose of the stipend is to financially support students while they are engaged in full-time research activity and other graduate student activities (e.g., required course work), which are critical elements of graduate training. The following list identifies common sources of stipend funding for graduate students in APP, although they are not

the only sources. Eligibility, stipend amounts (minimum of $20,000 for 2 years at the MSc level and $24,000 for 4 years at the PhD level), and application procedures for these and other sources of stipend funding are available on the CGPS website (https://grad.usask.ca/funding/scholarships.php#Majoruniversityscholarships).

In addition to these stipend supports, students may be permitted to work for up to 20 hours/week (i.e., 0.5xFTE) in alternative employment opportunities, so long as they continue to make sufficient progress in the program and have approval from their Supervisor. Any concerns about the student's progress in this situation will be evaluated by the student's Advisory Committee, and if needed, the APP Graduate Committee. This is in alignment with policy set forth for CoMGRAD scholarship holders, as well as CGPS policy (section 11.1: https://cgps.usask.ca/policy-and-procedure/financial/graduate-student-employment.php). If a student works >20 hours/week, then their eligibility for stipend support will immediately end, and their standing in the program will be subject to review by the APP Graduate Committee. Students working >20 hours/week may write an appeal to the APP Graduate Committee for continuation of stipend support, but the support of the Supervisor is required for this appeal. Appeals will be considered on a case-by-case basis, and a very compelling justification must be provided by the student for how working more than 20 hours/week will not interfere with any of the tasks, activities, and research productivity expected of a 1xFTE graduate student in the APP program.

Note that scholarship information summarized below, such as eligibility or other specific terms, can change. Please double check details on the CGPS website and with the APP Graduate Chair(s) for the most current information. **Details of the funding for each graduate student should be clearly described in the Graduate Student-Supervisor Agreement (Appendix D) that is signed and filed with your program of studies with CGPS. The Department will not admit students until funding required for student stipend and operating funds for the project are secured.**

A. NSERC/CIHR – Eligible APP students, upon consultation with their supervisors, ***must apply*** for these federal grants. The CGPS provides a $6,000 annual award for holders of NSERC-PGS and CIHR scholarships.

B. USask Dean's Doctoral Scholars are open to exceptional students at the PhD level. Separate competitions are held for domestic and international students. Students may be entering or continuing their degree.

C. College of Medicine Graduate Awards program (CoMGRAD) – Eligible APP students ***must apply*** for CoMGRAD to be eligible for APP devolved scholarships (see next listing). Also, CoMGRAD funding can be used as matching funds or top-up if other external awards are also granted.

D. APP Awards - open to all graduate students with the first two years of an MSc or 4 years of a PhD degree. Students who transfer from the MSc to the PhD are eligible for these funds for 4 years from the start of their PhD degree. The APP graduate committee administers two main awards: the 75th Anniversary Recruitment Scholarship for incoming students and the Student Support Fund for all graduate students. Requirements for USask Scholarships and Fellowships include a minimum 80% GPA. A call for applications from the Graduate chair is sent out to graduate students in May of each year. Funding decisions are announced in June, and awards run from September-August of the following year.

E. College Awards – open to graduate students in the College of Medicine. Eligibility varies between awards. These awards are administered through the Vice Dean Research office, and a call for applications is made each year.

F. Research grants of supervising faculty – In some cases, student stipends arise solely from research grants.

7. Teaching opportunities

Graduate students, particularly those in the PhD program, are offered the opportunity to participate in teaching or to serve as demonstrators in laboratory sessions. To this end, the Department offers Graduate Teaching Assistant (TA) appointments each year to students. Graduate students should be encouraged to TA, provided that they are making satisfactory progress in their thesis research endeavors. All graduate students are encouraged to discuss TA opportunities for a coming academic year with their Supervisor and Graduate Chair(s) in the spring. TA assignments will be made in May or June of each year.

Participation as a TA will bring the student into direct contact with undergraduate students and afford an appreciation of the problems associated with the administration of courses. Individuals are typically offered teaching in specific courses within their general area of competence. The duties and approximate hours of the appointment will be outlined in writing in a letter of offer for casual employment (PSAC). These duties may include attendance at lectures and meetings of course committees. Employees will complete and submit time sheets reporting actual hours worked.

Students who wish to obtain more extensive teaching experience may wish to apply for a Teacher Scholar Doctoral Fellowship, Graduate Teaching Assistantship, or a Graduate Teaching Fellowship. Calls for these awards are sent out by CGPS in the spring of each year. A maximum of 12 hours/week may be spent in teaching and will count toward the 20 hours/week of outside work a student is permitted to perform. Duties assigned to students serving as TAs will be in accordance with CGPS guidelines. Ultimately, teaching assignments will be determined by the Department Head.

8. Time in program, leaves of absence

Official program time limits (maximum) are four years for the MSc program, and six years for PhD programs. However, expected completion times are two years for an MSc and four years for a PhD. This time is measured from the beginning of the first term of registration in the APP Graduate Program, excluding any periods of approved leave. Request for a one-year extension of time in program after the maximum listed above is made to the APP Department Head, and beyond this extension, request for an additional year extension is made to the Dean of CGPS.

Leaves of absence are available to students for compassionate, medical, or parenting reasons (See parental leave policy - Appendix C). Reasonable accommodation is normally made. Leaves of absence from CGPS are normally granted in four-month blocks only, to coincide with the registration terms (Sept. 1 to Dec. 31; Jan. 1 to Apr. 30; May 1 to Aug. 31). Maternity, adoption, and parenting leave may be granted for 8- or 12-month blocks. See Appendix C for parental leave funding opportunities.

Requests for leaves should be discussed as early as possible with Supervisor(s) so that appropriate accommodations can be made prior to the beginning of the leave. Requests should be made in writing by the student for a minimum leave of four months to a maximum leave of twelve months. The Dean of the CGPS will consider any petitions arising from students whose request for leave has been denied by the Supervisor or academic unit. The leave period is not included in the time period for completion of the degree, and tuition fees are not assessed during the leave. While a student is on leave, all supervisory processes are suspended. Financial support offered to the student as a full-time, fully qualified student is not available to students on leave. Every possible accommodation should be made, however, in assisting the student to delay for the period of the leave, rather than having to decline offers of financial assistance. Letters of support in this regard will be sent to external funding agencies. Additional information regarding registration, fees, and funding for students on leave may be obtained from CGPS.

Appendix A: How do I apply for graduate studies at the University of Saskatchewan?

There are three potential graduate training programs in the Department of Anatomy, Physiology, and Pharmacology:

1) **Master of Science (MSc):** This is a thesis-based program offered to students holding a four-year degree, or a Doctor of Medicine (MD) or Doctor of Dentistry (DDS) from a recognized university in an academic discipline relevant to the proposed field of study. In some cases, BSc students in the APP Honor's program can transfer their project results to the MSc program. The expected length of the program should not exceed 2 years.
2) **Doctor of Philosophy (PhD):** This is a thesis-based program offered to students holding a Master's degree, or equivalent, from a recognized university in an academic discipline relevant to the proposed field of study. The expected length of the program should not exceed 4 years.
3) **Doctor of Philosophy (PhD), while obtaining a Doctor of Medicine (MD)→MD/PhD:** This is also a thesis-based program offered to students holding a Master's degree, or equivalent, from a recognized university in an academic discipline relevant to the proposed field of study, who have also been accepted into the USask medical school. The expected length of the program is 3 years, coming between the first 2 and last 2 years of the medical degree training.

Before applying for admission to graduate studies, prospective graduate students must first contact individual faculty members with research interests compatible with their own, to determine if that faculty member is willing to supervise the student. Information about the research interests of departmental faculty can be obtained from the Department web site (https://medicine.usask.ca/app/). When you contact your prospective supervisor, include your career goals, your academic credentials, and curriculum vitae. Once a supervisor has been identified and they agree to supervise your graduate program, you should access the website of the College of Graduate Studies and Postdoctoral Studies (CGPS) https://grad.usask.ca/programs/anatomy-physiology-pharmacology.php, where complete information on requirements and procedures for admission are available. Those international students who must meet English proficiency requirements should arrange for testing in their home country. Please note that international students are charged additional fees. Students with external scholarship support are encouraged to include this information with their application. Your application must include a letter of intent. This should be a 1-2 page description of your past credentials, reasons for applying to the APP program, the interactions you've had with your proposed supervisor, and future career goals.

Appendix B: Frequently Asked Questions (FAQ)

B.1 What should I include in my research proposal?
B.2 How do I set up a committee meeting?
B.3 What should I include in my annual research report?
B.4 What should I include in my Permission to Write Report?
B.5 How should I format my thesis?
B.6 Going to conferences – who pays?
B.7 What do I do if I have a conflict with my Supervisor and/or Advisory Committee member(s)?

B.1. What should I include in my research proposal?

The following is a suggested format for the research proposal – this can be modified as needed to adapt to different research questions and approaches. The total length should be determined by the needs of a specific proposal, but usually it is very brief, since it will likely change as you progress through your thesis.

1. Background information
   The literature review should outline the relevant literature framework into which your work will fit. This review should essentially set up and provide a rationale for the experimental hypothesis (*i.e.* what you are setting out to demonstrate).
2. Experimental hypothesis and summary of rationale for the hypothesis
   A hypothesis is a proposed, falsifiable explanation, made on the basis of limited evidence, as a starting point for further investigation. For example: **Estrogen maintains bone density**. Rationale for this hypothesis would be published studies that show a relationship between estrogen and bone density. A test of the hypothesis would be to manipulate estrogen and evaluate bone density. A prediction of the hypothesis would be that if you blocked estrogen, then you would lose bone density (a hypothesis should never be written as a prediction).
3. Objectives – how you will address your hypothesis
4. For each objective
   a. Rationale for experiment, and experimental hypotheses, if appropriate
   b. Design of experiment, including suitable control groups, sample sizes
   c. Proposed methods, including statistical analysis, power calculations if possible
   d. Anticipated results
   e. Anticipated problems and proposed solutions
   f. Proposed timeline
5. Actual results, if available
6. Interpretation of any actual results

B.2. How do I set up a committee meeting?

In consultation with your Supervisor, you are responsible for deciding when you should have an Advisory Committee meeting. Remember that you are required to have at least one meeting each year to review your progress (typically May/June), although you can hold as many meetings per year as is deemed necessary. **All** scheduling should be done by the Department graduate assistant. Please refrain from scheduling your own meetings as this can lead to confusion among committee members and the Graduate Assistant. When you have decided to have a meeting, contact the Departmental Graduate Assistant and provide the approximate dates (usually a 2-week window) and an agenda for the meeting. The Graduate Assistant will schedule the meeting when

all or most of your committee members can attend and will find an available room. Suggested agendas are:

- For the first meeting (before 4 months; Program of Studies meeting):
  - Introduction of student
  - Introduction of research topic (be prepared to present a brief introduction and summary of the proposed research)
  - Proposed coursework
  - Source of research and stipend funding
  - APP Grad Progress Form (check "Program of Studies" box)
- For annual meetings
  - Research progress
  - Progress in coursework
  - Stipend funding
  - APP Grad Progress Form (check "Annual Progress" box, and update dates of all such meetings)
- All reports should follow the format detailed in the APP Grad Progress Form

B.3. What should I include in my annual progress r e p o r t ?

The annual progress report is the last section of the APP Grad Progress Form, available from the Graduate Assistant and online. The report should begin with a general, but concise overview of the thesis project, then focusing on the specific progress made in the past year, as they relate to the hypothesis tested. Relevant data from previous years can be briefly summarized, but the target length of the report is 5 pages, not including figures, graphs, tables, timeline, and references. Previous years' progress reports can be emailed to your Advisory Committee to remind them of a more detailed explanations of previous relevant data. Please ensure that you also have filled out completely the rest of the form, including among other things all previous Advisory Committee meetings, coursework (including Ethics), conference presentations, publications, career goals, and suggestions for Grad Program improvements. Remember that these portions of the form should represent your accomplishments/progress ***since starting the APP program***, but please somehow separate any accomplishments that were achieved independent of your work the APP program

1. Abbreviated literature review (1 page)
   Start with a paragraph summarizing your full thesis project, then focus on the specific rationale for experiments presented in that year's Annual Research Progress Report.
2. Thesis hypothesis and Objectives/tests of hypothesis (max ½ page)
   Again, focus on that year's results.
3. Results/Discussion
   Clearly present your progress on each objective achieved during the past year (only briefly repeat previous results if they are needed to understand your results in the past year), briefly discuss results, and indicate whether a manuscript of your work is being drafted or submitted. It's best to embed figures/graphs/tables within the body of text, so that written results are near the data presented.
4. An updated timeline towards completion of degree
5. Literature cited

B.4. What should I include in my Permission-to-Write report?

The Permission-to-Write (PTW) meeting allows the Advisory Committee to survey the completion and quality of the student's coursework, publications/presentations, thesis data, and structure of the thesis as a unified piece of work. With this in mind, the PTW meeting should include the Annual Progress Report Form, but instead of the Research Progress Report (last section of the form), the following PTW document should accompany the form:

1. A 1-2 page Abstract of thesis (this is the best way to communicate the accomplishments of your thesis)
2. A list of thesis objectives and hypotheses (even if somewhat redundant with abstract, these should be clearly written in bullet points)
3. A table of contents formatted appropriately for a thesis, including an indication of which chapters are published, which are submitted, and which have not yet been submitted for publication
4. A 1-2 page summary for each proposed chapter, each of which should include
    a. the rationale, specific objectives, and hypotheses for that chapter (very briefly if already included in (2) above);
    b. a **summary** of the most significant findings for each chapter, illustrated with 1 to 3 pertinent figures with complete figure legends (*i.e.* NOT all the figures for each chapter);
    c. List of all figures/tables in that chapter;
    d. NOTE: you should include a detailed explanation of any new data generated since the last AC meeting (this likely will make those relevant chapters longer than 1-2 pages); and
5. A final summary statement indicating whether the overall objectives/hypotheses of the thesis have been addressed.

Remember that you really want the PTW document to communicate effectively that you have collected sufficient data to properly test your hypothesis and address your study aims. You also want to be sure to communicate effectively to your committee what you feel are your major contributions to the research field.

B.5. How should I format my thesis?

Theses must follow a consistent editorial format. You should consult the CGPS guidelines (available at https://cgps.usask.ca/onboarding/thesis-roadmap/thesis-roadmap.php), and review recent theses from the Department available through CGPS (https://harvest.usask.ca/handle/10388/381).

Normally the order in which the items are presented in the thesis is as follows:

1. title page,
2. abstract,
3. "permission to use the thesis",
4. table of contents,
5. list of tables,
6. list of figures, and
7. list of abbreviations.
8. The body of the thesis
    a. Introduction that gives in 1-2 paragraphs an overview of the rationale for the project
    b. Literature review, which should outline the relevant literature framework into which your work will fit. This review should in essence set up and provide a rationale for the experimental hypothesis (*i.e.* what you are setting out to demonstrate)
    c. Hypothesis and objectives. Remember, a hypothesis is a proposed, falsifiable explanation, made on the basis of limited evidence (never write a hypothesis as a prediction).
    d. The next portions of the thesis present your research, in one of two formats:
        i. If you have published much of your research, you may wish to use these publications as the individual chapters of your thesis. Within the thesis, each publication (or 'data chapter') therefore has its own introduction, materials and methods, results and figures/tables, and discussion section.

            A few important points:

            1. The references from each of the data chapters should **not** be included at

the end of each chapter but be collected together in one common bibliography at the end of the thesis.

2. Normally, methods common to different chapters should not be repeated in each chapter but included only once, and then cited as appropriate for subsequent chapters.

ii. If you have not published your work, you may elect to use a more traditional thesis format, with one common material and methods section, several results subsections.

e. A general discussion chapter is required following the last data chapter (i, above) or results section (ii, above). You will need to present a coherent discussion of all of your work in one common discussion, which needs to be more in-depth and insightful than a simple summary of the discussions of each of the data chapters, for example.
f. Conclusions, future directions
g. Bibliography
h. Appendices

B.6. Going to conferences – who pays?

Your attendance and presentation of your research results at local, national and/or international scientific conferences is strongly encouraged. Normally, decisions on whether you will attend a particular conference are made jointly between you and your supervisor. It should be made clear in these discussions whether part or all of your expenses (*e.g.,* registration, travel, accommodation and meals) will be paid through your supervisor's research grants, including how and when these expenses will be paid and/or reimbursed. Usually, the supervisor is expected to pay for student conference-related expenses. In addition, travel awards are available from CGPS or from the College of Medicine. For information on these, contact the graduate assistant.

B.7. What do I do if I have a conflict with my Supervisor and/or Advisory Committee member(s)?

We're sorry to hear that you are having some issues. The primary point of contact for any issues is your Supervisor. If the Supervisor is unable or unwilling to address your concern, then you should contact your Advisory Committee Chair, who will mediate among yourself and any other involved members (including, but not limited to, your Supervisor or other AC members) to address your concern. The Graduate Chair can also be involved to help facilitate a resolution of any issues. If all of these attempts to mediate any conflicts are unsuccessful, then CGPS needs to be contacted directly.

Appendix C: Parental leaves

The Tri-Agencies, CGPS, and College of Medicine all have procedures for graduate students wishing to take a parental leave during their program. Also, parental leave application procedures vary depending on funding source and university admin structure, so please work closely with your supervisor to identify the appropriate process and address any bureaucratic issues that arise.

Tri-Agency paid maternity/parental leave for students and postdoctoral fellows: The Tri-Agencies will provide maternity/parental leave supplements within 12 months following a child's birth or adoption to eligible students and postdoctoral fellows who are paid out of agency grants and who are the child's primary caregivers. The supplement paid to the grant recipient will be based on the students' and/or postdoctoral fellows' current salary/stipend from the grant for up to 12 months to cover the leave period. The most up-to-date information is available here: https://www.nserc-crsng.gc.ca/NSERC-CRSNG/policies-politiques/Wleave-Fconges_eng.asp.

CGPS: for the most up-to-date information regarding policies on parental leaves from CGPS, please see: https://students.usask.ca/graduate/appeals-leaves-extensions.php.

College of Medicine: for the most up-to-date information regarding policies on parental leaves from the College of Medicine, please contact the Assistant Dean of Graduate Studies at ovdr.grad@usask.ca.

Appendix D: Student-Supervisor Agreement (SSA)

(to ensure updated form, go to https://medicine.usask.ca/students/graduate-programs/anatomy-physiology-and-pharmacology.php#GraduateDegreePrograms)

UNIVERSITY OF SASKATCHEWAN
College of Graduate and Postdoctoral Studies
GRAD.USASK.CA

Student-Supervisor Agreement

for thesis-based degree programs (May 2017)

This document has been adapted from guidelines created by the University of Manitoba Faculty of Graduate Studies and the Canadian Association of Graduate Studies.

NOTE:

The student should be the main party responsible for the study program and the performance of related activities, such as the submission of a Master's or Doctoral thesis, and should demonstrate a deep commitment to the program of study and interest in the selected research topic.

Introduction

- This form is designed to provide a framework for discussion between the Supervisor(s) and the Graduate Student and to establish guidelines to govern their relationship. It may be revisited at any stage of the Student's graduate program to accommodate for changes in the Student-Supervisor(s) relationship and/or the research project.

- The Supervisor(s)-Student relationship involves mentoring, support, career development, as well as academic oversight. The Supervisor(s) and Student should work together to arrive at jointly acceptable terms to establish their relationship.

- The completed form is to be regarded as an aid to planning and finishing the thesis project. It is not intended to be legally binding.

- It's anticipated that the discussion between Student and Supervisor(s) while completing this form will contribute to a healthy relationship, but completion of this agreement is not mandatory. This agreement is not a required element of a graduate student's program.

- The Supervisor and the Student are free to add items to the form to tailor it to their joint purposes.

- The Supervisor(s) is/are responsible for supervising the Student's graduate program. The Supervisor(s) is/are the Student's primary contact(s) at the University of Saskatchewan, and should be familiar with the general policies and regulations of the College of Graduate and Postdoctoral Studies as well as the specific supplementary regulations of their academic unit. This form does not replace official University of Saskatchewan statements of policy and procedure.

- If the Student or Supervisor(s) have any questions or concerns regarding their graduate program or this form, advice may be sought from the program graduate chair, unit head, or the College of Graduate and Postdoctoral Studies.

- Please visit the College of Graduate and Postdoctoral Studies website to find more information and guidance for both the Supervisor(s) and Student.

- The Supervisor(s) and the Student should review each of the points listed below and check off each box to confirm that the items have been discussed and understood by the Supervisor(s) and the Student. **Ideally, this document should be completed prior to the commencement of any research and no later than the submission of the first Progress Report for the Student.**

Part 1 | Supervisor(s) and Student

a. The supervisor(s), _____ (the "Supervisor(s)") is/are a member/s of the College of Graduate and Postdoctoral Studies and agree(s) to supervise the graduate program of the Student named below; and

b. The student _____(the "Student") is registered in the College of Graduate and Postdoctoral Studies, studying in at the University of Saskatchewan and wishes to carry out a graduate program under the supervision of the above named Supervisor(s).

Part 2 | General Roles and Responsibilities

2.1 The Supervisor(s)

Please review the following points, and click each box to acknowledge that it was discussed. The

Supervisor(s) will:

☐ Guide the Student on degree requirements, appropriate elective course work, research, thesis proposal, thesis writing, suitable resources, and workspace.

☐ Assess and confer appropriate and fair acknowledgment of Student contributions to scholarly activity.

☐ Give reasonable notice to the Student of extended absences from campus, such as research leaves, and make satisfactory arrangements during such absences.

☐ Provide advice on the composition of the advisory and examining committees.

☐ Disclose any conflict of interest that may arise with respect to the Student.

The following are optional points to be discussed. If relevant, please review the following points, and click the box to acknowledge that it was discussed.

☐ Provide guidance on how to work effectively as a member of a team.

☐ Assist in providing infrastructure and facilities required for the Student to undertake scholarly activities.

☐ Any other mutually agreed upon responsibilities:

2.2 *The Student*

Please review the following points, and click each box to acknowledge that it was discussed. The

Student will:

- ☐ Familiarize themselves with the policies, procedures, regulations and deadlines established by the University of Saskatchewan, the College of Graduate and Postdoctoral Studies, and their respective unit.
- ☐ Seek the advice of the Supervisor(s) regarding required course work including appropriate electives, research, thesis proposal, thesis writing, suitable resources, and workspace.
- ☐ Demonstrate appropriate professional judgment, collegial behavior, academic rigor and integrity at all times and in every facet of the graduate program.
- ☐ Dedicate time to the graduate program to make timely and effective progress towards degree completion.
- ☐ Maintain contact with the Supervisor(s) and provide any changes in contact information.
- ☐ Consult with the Supervisor(s) regarding graduate program examiners and assessors.

The following are optional points to be discussed. If relevant, please review the following points, and click the box to acknowledge that it was discussed.

- ☐ Keep laboratory, research, and computer areas tidy, and respect the space and property of others.
- ☐ Strive to work effectively as a member of a team.
- ☐ Any other mutually agreed upon responsibilities:

2.3 *The College of Graduate and Postdoctoral Studies*

The College of Graduate and Postdoctoral Studies holds primary responsibility for ensuring that program policies, including admission criteria, program timelines, and requirements are clearly articulated and duly followed. The College also facilitates access to funding sources. Students and Supervisor(s) should be familiar with the College website, regulations, and resources.
See College of Graduate and Postdoctoral Studies - PAWS - University of Saskatchewan (usask.ca)

Part 3 | Meetings

Please review the following points, and click each box to acknowledge that it was discussed.

☐ The Supervisor(s) and Student will arrange and attend regular meetings. The frequency of the meetings may vary, but at a minimum, meetings normally will be held every _____ (indicate weekly or monthly intervals and/or frequency).

☐ The Supervisor(s) will respond in a timely manner (normally not to exceed 30 days) with constructive suggestions/revisions to written work (including proposals, literature reviews, analysis, chapters), as well as research and scholarship applications, reports, manuscripts, or scholarly presentations.

☐ The Supervisor(s) and Student will organize and schedule an in-person meeting with the entire advisory committee at least once annually. Additional meetings may be held at the request of either the Student or the Supervisor(s). If appropriate, the Student will distribute reports in advance of scheduled meetings with the advisory committee.

☐ Any other mutually agreed upon responsibilities:

_____

Part 4 | Publications

Please review the following points, and click each box to acknowledge that it was discussed.

☐ The Supervisor(s) will acknowledge the contribution of the Student in any publications and/or presentations, as appropriate.

☐ Order of authorship and the criteria to determine the order of authorship on any shared publications will be established.

☐ All University policies pertaining to attribution and/or authorship will be followed.

☐ The Student and the Supervisor(s) will discuss the patentability of any invention arising out of the research before any publication or presentation of the research in order to ensure that the patentability of the invention is not jeopardized.

☐ Any other mutually agreed upon responsibilities:

_____

Part 5 | Intellectual Property, Academic Integrity, and Ethics

Please review the following points, and click each box to acknowledge that it was discussed.

- ☐ The Student will hold the copyright of their thesis.
- ☐ The Supervisor(s) and Student will abide by the specific guidelines and rules for copyright and intellectual property at the University of Saskatchewan.
- ☐ The Student will keep orderly records of all research data produced or developed.
- ☐ Where research data is produced or developed, both the Student and Supervisor(s) will have access to the data at all times.
- ☐ Both Student and Supervisor(s) understand that the provisions of the University's Intellectual Property Policy pertaining to work done while a graduate student, as well as the guidelines around publication and access to research data, remain in place even after the Student is no longer attending the University.
- ☐ The Student is responsible for understanding the meaning of academic integrity at the Uni- versity of Saskatchewan and ensuring it is applied to all their work.
- ☐ The Supervisor(s) and the Student will adhere to the University's policies and procedures related to the conduct of research, including any necessary human ethics review procedures, and animal care ethics, that must be completed.
- ☐ Where the Supervisor(s) is/are a member(s) of the University of Saskatchewan Faculty Association ("USFA"), the provisions of the USFA collective agreement will apply to the Supervisor(s).
- ☐ The following are optional points to be discussed if relevant. Please review the following points and click the box to acknowledge that it was discussed.
- ☐ The Student must complete appropriate courses on the use of animals or humans in research. Any
- ☐ other mutually agreed upon responsibilities:

Part 6 | Timelines and Completion

Please review the following points, and click each box to acknowledge that it was discussed.

☐ Progress Report forms are to be submitted at least once per 12-month period. More frequent updates may be necessary. The Advisory Committee and the Supervisor(s) must jointly complete this form.

☐ The maximum time period, including course work, examinations, research, thesis writing and defence (if applicable) permitted for the Student's graduate program is ____ years (please consult your specific program regulations as set by the College of Graduate and Postdoctoral Studies). It is anticipated that the Student should complete the graduate program within ____ years.

The following are optional points to be discussed. If relevant, please review the following points, and click the box to acknowledge that it was discussed.

☐ Student commitments for other duties such as non-degree research, teaching and teaching assistantships, or other responsibilities, should not delay efforts to complete the graduate program.

☐ Any other mutually agreed upon responsibilities:

Part 7 | Funding

Please review the following points, and click each box to acknowledge that it was discussed.

☐ The Student will seek opportunities for scholarships appropriate to their program, aided by the Supervisor(s).

If relevant, please review the following points, and click the box to acknowledge that it was discussed.

☐ The student will receive $ _____ per month for _____ (duration) from _____ (source) subject to satisfactory progress in program requirements.

☐ Any other mutually agreed upon responsibilities:

Part 8 | Safety

If relevant, please review the following points, and click the box to acknowledge that it was discussed.

☐ The Student will be subject to appropriate safety courses or requirements at the University of Saskatchewan, including those pertaining to workplace and fieldwork protection, hazardous materials, radioisotopes, laboratory and environmental waste management, or others.

☐ The Supervisor(s) and Student will seek input and direction from safety officers or other appropriate personnel within their unit if further training is required.

Part 9 | Privacy and Confidentiality

Please review the following points, and click each box to acknowledge that it was discussed.

☐ If confidential information is provided to a student in the program, the student will not disclose the confidential information to any third parties, except as required by law or as permitted by agreement pursuant to which the confidential information was shared.

☐ The U of S Freedom of Information and Protection of Privacy Policy applies to the Student's program along with provincial and federal legislation.

Part 10 | Professional Development

Please review the following points, and click each box to acknowledge that it was discussed.

☐ Opportunities for the Student to attend suitable conferences and present scholarly work will be sought.

☐ Sources of funding for Student travel should be investigated and applied for.

☐ Professional development programs, such as effective writing courses, teaching training, academic integrity, and workshops on research grants and career opportunities will be encouraged.

☐ Any other mutually agreed upon responsibilities:

Part 11 | Vacation

Please review the following points, and click each box to acknowledge that it was discussed.

☐ Graduate students are entitled to a minimum of 2 weeks vacation per year in addition to weekends, statutory holidays, and university closures. Vacation time will be scheduled at times that are mutually agreed upon by the student and supervisor(s).

☐ Where program requirements necessitate working during weekends, statutory holidays, or university closures, alternate time off will be provided as mutually agreed.

☐ Students receiving funding with a service requirement may not take vacation at a time that causes disruption to the service requirement unless approved by the person/unit in charge of

the service.

Part 12 | Other

Any other mutually agreed upon responsibilities:

The Student and Supervisor(s) have reviewed and understand these guidelines.

By checking this box, you agree that you have read and understood this form, and that the information provided within is true and accurate to the best of your knowledge.

☐

student signature

student printed name

Date: _____

☐

supervisor signature

supervisor printed name

Date: _____

☐

supervisor signature

supervisor printed name

Date: _____

Copies of these signed guidelines will be kept by the Supervisor(s) and the Student, the unit (in the Student's file), and the College of Graduate and Postdoctoral Studies.

Appendix E: APP Grad Progress Form

(to ensure updated form, go to https://medicine.usask.ca/students/graduate-programs/anatomy-physiology-and-pharmacology.php#GraduateDegreePrograms)

→**please provide cumulative information (except for funding and Progress Report)**

Current Date		**Date of Initial Registration**			
Student Name					
Student Number		**Program**	**MSc☐**	**PhD☐**	
Committee Membership					
Supervisor(s)					
Committee Chair					
Regular Member(s)					
Cognate Member					
Committee Meetings					
Purpose of Today's Meeting					
☐ **Initial Program of Studies Meeting**	☐ **Transfer to PhD**	☐ **Comprehensive Exam**			
☐ **Annual Progress Meeting**	☐ **Qualifying Exam**	☐ **Permission to Write**			
Student Timeline Progress					
Initial POS Meeting		**Transfer to PhD**		**Qualifying Exam**	
Comprehensive Exam					
Annual Progress Meetings (list dates of all previous meetings)					
Funding					
Source (to add line item, move mouse to lower-left of textbox below and click "+")		**Amount**	**Time Period**		
Program of Studies					
Coursework	**Proposed**				
	In Progress				
	Completed/Grade				
Ethics Coursework	**Approval Required**	☐ **Yes**	☐ **No**	**AUP#**	
	Courses Completed	☐ **GPS 960** Introduction	☐ **GPS 961** Human Research **And/Or** ☐ **GPS 962** Animal Research		
	Other Courses				
Publications (Journal articles, book chapters, and other full-length publications, provide full citation)					
Conference Presentations (Meeting presentations, posters and published abstracts, provide full citation)					
Other Relevant Activities (Awards [name, date, value, do not include scholarships], teaching experience [course, year, contact hours])					
Additional Information (**L**eaves of absence/interruptions [date and type of leave], career plans)					

Suggestions for Improvement of our Graduate Program

Research Project Report (5 pages max.)

Remember: you need to focus on the past year, but you also must briefly remind committee of your overall thesis progress

1. Background (max 1 page): Start with a paragraph on your full thesis project, then focus on the specific rationale for experiments presented in this year's Annual Research Progress Report.

2. Thesis Hypothesis and Objectives/tests of hypothesis (max ½ page).

3. Results/Discussion: Present your progress on each objective achieved during the past year (only briefly repeat previous results if they are needed to understand your results in the past year), briefly discuss results, and indicate whether a manuscript of your work is being drafted or submitted.

4. Appendices (not factored into 5 page limit): Provide figures/graphs/tables, a brief updated timeline for thesis completion (doing experiments, writing up, etc.), and Literature Cited.