MEMORANDUM

To: Academic Programs Committee of University Council

Copy: Dr. John Howland, Department of Anatomy, Physiology and Pharmacology

From: Martha Smith, Associate Dean, CGPS

Date: December 11, 2019

Re: Program Merger – Anatomy, Physiology and Pharmacology

As a result of the Graduate Program Review process and strategic planning processes in the College of Medicine, the three independent departments of Anatomy & Cell Biology, Physiology, and Pharmacology were merged effective July 1, 2018. Merging the three independent graduate programs would provide more cohesive programming and enrich the experience for the graduate students.

The merger of the three programs would have all graduate students entering a new field of study “Anatomy, Physiology and Pharmacology”. Existing students would have the option to remain in their current program or transfer to the new field. The CGPS requests that APC approve the proposal effective May 1, 2020.

The Graduate Programs Committee first considered the proposal to merge the programs during the 2018/2019 academic year; however, it was determined that additional information was needed to respond to the Graduate Program Review process. The proposal to merge the three programs was approved by the Graduate Programs Committee on October 21, 2019. The proposal was subsequently approved by the Executive Committee of CGPS on November 25, 2019. Note that all recommendations by CGPS committees were accepted by the proponents and incorporated into the proposal as submitted.

Attached please find the full program proposal and supporting documents.

If you have any questions, please contact Kelly Clement at kelly.clement@usask.ca or 306-966-2229
On November 25, 2019, the Executive Committee (EC) of CGPS considered a recommendation from the Graduate Programs Committee (CGPS) to merge the Anatomy, Physiology and Pharmacology graduate programs.

There was extensive discussion at the Executive that included graduate program review outcomes directly impacting these graduate programs in which this proposal begins to address.

**Accepted Motion:** To recommend approval of the merged Anatomy, Physiology and Pharmacology graduate programs on the condition that corrections and clarifications be made to the policy manual. The committee recommends that the language on the comprehensive exam indicate that the exam should be completed within the first 2 years in program. *Misra/ McIntyre*

The accepted motion was the followed up by a second motion tasking the Dean, CGPS to ensure a process is clearly established in response to graduate program review (GPR) outcomes.

**Motion:** The EC tasks the CGPS Deans Office to establish a process to ensure that units adequately respond to recommendations from program reviews with a commitment to ensure programs are meeting expectations. *Heavin/Newton*

The attached appendix provides additional background for consideration. If you have any questions, please contact Dean Trever Crowe at trever.crowe@usask.ca or by phone at 966-5759.
MEMORANDUM

To: Executive Committee of CGPS

Copy: Dr. John Howland, Graduate Chair, Anatomy, Physiology & Pharmacology

From: Graduate Programs Committee

Date: October 28, 2019

Re: Merger of Graduate Programs in Anatomy & Cell Biology, Physiology, and Pharmacology

On October 21, 2019, the Graduate Programs Committee considered a proposal to merge existing programs in the fields of 1) Anatomy & Cell Biology, 2) Physiology, and 3) Pharmacology. The program merger proposal had been considered by the committee during the 2018/2019 year; however, there had been some concern that the proponents had not sufficiently responded to the graduate program review recommendations. The program merger was being proposed following the merger of the three departments that had been effective July 1, 2018. Overall, merging the graduate programs seemed logical to provide more cohesive programming for the graduate students.

Existing students would have the option to remain in their existing program, or transfer to the new field of study. New students would be admitted to the new field of study.

A graduate student handbook had been provided in the proposal, and that document was helpful in describing programmatic requirements and expectations.

The proposal included indication of existing course offerings along with indication of intended offerings for the future. It was noted that the new courses suggested would require approval, and since they would be elective options, the course proposals could be approved independent of the program merger.

The Graduate Programs Committee was satisfied with the proposal, and the following motion was passed unanimously:

Motion: To recommend approval of the merged Anatomy, Physiology and Pharmacology graduate programs on the condition that corrections and clarifications be made to the policy manual as noted in the minutes. The committee recommends that the language on the
comprehensive exam indicate that the exam should be completed within the first 2 years in program. Labrecque/Tanaka CARRIED

Following the motion, the following corrections and clarifications were incorporated into the policies and procedures section of the proposal:

- Information on the qualifying and comprehensive exams was revised for consistency with CGPS policy language and to provide additional information to students. Consistent with the recommendation from the Graduate Programs Committee, comprehensive exam language was revised to suggest the exam should be completed within the second year of the program.
- Information regarding defence processes was revised to align with CGPS policy changes that had occurred during the last year.
- Clarified that the program would require all admitted students to receive funding. Funding could be obtained through a variety of sources including scholarship, supervisor’s research grant, devolved allocations, etc.

Attached please find the proposal for the program merger/name change including a comprehensive response to previous program concerns, as well as a handbook indicative of program expectations.

If you have any questions, please contact Kelly Clement at kelly.clement@usask.ca or 306-966-2229
PROPOSAL IDENTIFICATION

Title of proposal: Program Merger/New field of study – Anatomy, Physiology & Pharmacology

Degree(s): Master of Science, Doctor of Philosophy

Field(s) of Specialization: Anatomy, Physiology & Pharmacology

Level(s) of Concentration: N/A

Option(s): N/A

Degree College: N/A

Contact person(s) (name, telephone, fax, e-mail):
Martha Smith, Acting Associate Dean, CGPS, 306-966-2229; kelly.clement@usask.ca

Proposed date of implementation: May 1, 2020

Proposal Document

Please provide information which covers the following sub topics. The length and detail should reflect the scale or importance of the program or revision. Documents prepared for your college may be used. Please expand this document as needed to embrace all your information.

1. Academic justification:
   a. Describe why the program would be a useful addition to the university, from an academic programming perspective.
   Merging the graduate programs was suggested in the Graduate Program Review process.
   Merging the three programs to a single program is expected to increase and improve opportunities for course delivery without duplication.
   With the rise in interdisciplinary research, the increased size and scope of the student population is expected to enrich the culture.
b. Giving consideration to strategic objectives, specify how the new program fits the university signature areas and/or integrated plan areas, and/or the college/school, and/or department plans.

The three independent departments were merged effective July 1, 2018. Merging the graduate programming was part of the planning process.

c. Is there a particular student demographic this program is targeted towards and, if so, what is that target? (e.g., Aboriginal, mature, international, returning)

There is no targeted demographic; however, discussions are underway regarding increasing indigenous student enrolment in graduate programming in the department.

d. What are the most similar competing programs in Saskatchewan, and in Canada? How is this program different?

Similar programming exists at almost all U15 institutions. Shared facilities, seminars, etc. provides increased opportunities for interdisciplinary work and novel research.

2. Admissions

a. What are the admissions requirements of this program?

Standard CGPS admission standards for Master’s and PhD programs.

3. Description of the program

a. What are the curricular objectives, and how are these accomplished?

Master’s students will complete coursework and other scholarly activities and complete the program by writing and defending a thesis to contribute knowledge to their discipline. Upon completion of a master’s program, graduates will be prepared for doctoral study or employment opportunities contributing knowledge to the discipline.

Doctoral students will complete coursework along with oral and/or comprehensive exams and will complete the program by writing and defending a dissertation that provides an original contribution to knowledge in the discipline. Upon completion of a doctoral program, graduates will be prepared for an academic or applied career in the discipline.

b. Describe the modes of delivery, experiential learning opportunities, and general teaching philosophy relevant to the programming. Where appropriate, include information about whether this program is being delivered in a distributed format. The program will be delivered in a traditional format. Modular condensed class options will be introduced. Cotutelle programming is possible.

c. Provide an overview of the curriculum mapping.

Master’s students complete coursework, lab/field work, thesis proposal, thesis writing, and then oral thesis defence.

Doctoral students complete coursework and qualifying exams (where applicable), comprehensive exams, lab/field work, dissertation proposal, and then oral dissertation defence.

d. Identify where the opportunities for synthesis, analysis, application, critical thinking, problem solving are, and other relevant identifiers.
As these are research-based programs, those opportunities are woven throughout the program requirements.

e. **Explain the comprehensive breadth of the program.**

Master’s graduates will be able to demonstrate mastery of a specific sub-field of the discipline, while PhD graduates will have made a novel contribution to a specific sub-field and demonstrated mastery of cognate sub-fields.

f. **Referring to the university “Learning Charter”, explain how the 5 learning goals are addressed, and what degree attributes and skills will be acquired by graduates of the program.**

This question does not align with the current version of the learning charter.

g. **Describe how students can enter this program from other programs (program transferability).**

Standard regulations for CGPS student program transfers would be applicable.

h. **Specify the criteria that will be used to evaluate whether the program is a success within a timeframe clearly specified by the proponents in the proposal.**

The new program will be subject to program review processes managed through institutional planning and assessment.

i. **If applicable, is accreditation or certification available, and if so how will the program meet professional standard criteria. Specify in the budget below any costs that may be associated.**

N/A

4. **Consultation**

The program merger is a result of the Graduate Program Review process and strategic planning processes in the College of Medicine.
<table>
<thead>
<tr>
<th>Master of Science (MSc)</th>
<th>Existing Anatomy &amp; Cell Biology Programs</th>
<th>Existing Pharmacology Programs</th>
<th>Existing Physiology Programs/Proposed requirements for Anatomy, Physiology, and Pharmacology programs</th>
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<tbody>
<tr>
<td></td>
<td>Students must maintain continuous registration in the 994 course.</td>
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<td>• thesis defense</td>
<td>• PCOL 994.0</td>
<td>• Thesis Defence</td>
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¹ Oral comprehensive exams are not normally required in master’s level programs
² In a master’s program with less than 12 cu of minimum coursework required, all courses must be graduate (800) level
<table>
<thead>
<tr>
<th><strong>Doctor of Philosophy (PhD)</strong> with earned Master’s degree</th>
<th><strong>Existing Anatomy &amp; Cell Biology Programs</strong></th>
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<td>• minimum of 3 credit units (if M.Sc. already completed) otherwise 12 credit units³</td>
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<td>• GPS 988.0 (if required)⁴</td>
<td>• thesis defense</td>
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³ Master’s degree is required for admission; existing language regarding 12 cu is unnecessary
⁴ Outdated. Previously 988 was the animal ethics course that is currently GPS 962.
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<td>Direct-entry PhD</td>
<td>N/A</td>
<td>Students must maintain continuous registration in the 996 course.</td>
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<td>• At least 9 credit units of course work at the graduate level must be successfully completed in the first year of the program.</td>
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<td>• Within the first year of the program, successfully complete a Ph.D. Qualifying Examination that is at least as rigorous as the defence for a Master’s thesis in the program area.</td>
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<td>• A minimum of 12(^5) credit units at the 800-level</td>
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<td>• a comprehensive examination</td>
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<td>• Write and successfully defend a thesis based on original investigation.</td>
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<td>Students must maintain continuous registration in PHSI APPY 996.0.</td>
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<td>• thesis defence</td>
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\(^5\) CGPS maintains minimum programmatic requirements. Individual graduate programs may include requirements in excess of the minimum requirements listed.
<table>
<thead>
<tr>
<th>Transfer from MSc to PhD</th>
<th>Existing Anatomy &amp; Cell Biology Programs</th>
<th>Existing Pharmacology Programs</th>
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• ACB 996 | Students must maintain continuous registration in the 996 course. | • GPS 960.0  
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• GPS 962.0 if research involves animal subjects  
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• PCOL 990.0  
• PCOL 996.0  
• Oral Qualifying Exam$^6$  
• Oral Comprehensive Exam |
| Students must maintain continuous registration in the 996 course. | • GPS 960.0  
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• GPS 962.0 if research involves animal subjects  
• a minimum of 12 credit units of 800-level coursework  
• ACB 990.0  
• ACB 996 | Students must maintain continuous registration | • GPS 960.0  
• GPS 961.0 if research involves human subjects  
• GPS 962.0 if research involves animal subjects  
• a minimum of 12 credit units at the 800-level, including relevant credit units taken before transfer$^7$  
• PCOL 990.0  
• PCOL 996.0  
• Qualifying examination prior to transfer from M.Sc. to Ph.D  
• Ph.D. Comprehensive Exam  
• Thesis Defence |

$^6$ Qualifying exam required PRIOR to transfer

$^7$ A minimum of 9 credit units must be completed to be eligible for transfer
Report Form for Program Termination

Program(s) to be deleted: The fields of 1) Anatomy and Cell Biology, 2) Physiology, and 3) Pharmacology on the Master of Science and Doctor of Philosophy degree programs

Effective date of termination: May 2020. Students already enrolled will be permitted to complete their programs

1. List reasons for termination and describe the background leading to this decision.

2. Technical information.
   2.1 Courses offered in the program and faculty resources required for these courses. All resources will be redirected to the new combined APPY graduate programs.
   2.2 Other resources (staff, technology, physical resources, etc) used for this program. All resources will be redirected to the new combined APPY graduate programs.
   2.3 Courses to be deleted, if any. Courses to be relabeled. The individual 99X courses will be replaced with APPY 99X courses.
   2.4 Number of students presently enrolled.
   2.5 Number of students enrolled and graduated over the last five years.

3. Impact of the termination.
   Internal
   3.1 What if any impact will this termination have on undergraduate and graduate students? How will they be advised to complete their programs?
   Program mergers at the undergraduate level have already been approved. The combined program is anticipated to be an improvement over the three independent programs. Current students will have a choice to transfer to the new program or complete the program under the previous field of study.
   3.2 What impact will this termination have on faculty and teaching assignments?
   Combining the programs is anticipated to result in better utilization of teaching resources.
   3.3 Will this termination affect other programs, departments or colleges?
   No
   3.4 If courses are also to be deleted, will these deletions affect any other programs?
   N/A
3.5 Is it likely, or appropriate, that another department or college will develop a program to replace this one?
No. Three independent programs are being replaced by one cohesive program. Other units will not be impacted.

3.6 Is it likely, or appropriate, that another department or college will develop courses to replace the ones deleted?
N/A

3.7 Describe any impact on research projects.
N/A

3.8 Will this deletion affect resource areas such as library resources, physical facilities, and information technology?
Changes to physical facilities for the combined department are already in place to support the new combined program replacing the program deletions.

3.9 Describe the budgetary implications of this deletion.
While there are some initial in-kind contributions for system related work, overall budget implications would be negligible.

External

3.10 Describe any external impact (e.g. university reputation, accreditation, other institutions, high schools, community organizations, professional bodies).
N/A

3.11 Is it likely or appropriate that another educational institution will offer this program if it is deleted at the University of Saskatchewan?
N/A

Other

3.12 Are there any other relevant impacts or considerations?

3.13 Please provide any statements or opinions received about this termination.

(Optional)

4. Additional information. Programs which have not undergone recent formal reviews should provide additional relevant information about quality, demand, efficiency, unique features, and relevance to the province.
This Request form and attachments will be the basis for decision-making about this change.

Submitted by: John Howland Date: October 1, 2019

College: Medicine

College approval date: Documents have been submitted to College of Medicine Faculty Council for review.

Proposed effective date of the change: May 1, 2020

1. Proposed change of name

<table>
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<tr>
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<th>From:</th>
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<tbody>
<tr>
<td>College</td>
<td>CGPS</td>
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</tr>
<tr>
<td>Department</td>
<td>Anatomy, Physiology, and Pharmacology</td>
<td>no change</td>
</tr>
<tr>
<td>Program name</td>
<td>Anatomy and Cell Biology (1), Pharmacology (2), Physiology (3)</td>
<td>Anatomy, Physiology, and Pharmacology (1)</td>
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<tr>
<td>Degree name</td>
<td>M.Sc., Ph.D.</td>
<td>M.Sc., Ph.D.</td>
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<tr>
<td>Name of Field of Specialization (major, minor, concentration, etc)</td>
<td>Anatomy and Cell Biology (1), Pharmacology (2), Physiology (3)</td>
<td>Anatomy, Physiology, and Pharmacology (1)</td>
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<tr>
<td>Course label (alphabetic)</td>
<td>ACB, PCOL, PHSI</td>
<td>APPY</td>
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<td>Building</td>
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<td>Street</td>
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<td>Other</td>
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2. Documentation

Rationale: Provide a rationale for the change and describe the background leading to this decision.

On July 1, 2018, the departments of Anatomy and Cell Biology, Physiology, and Pharmacology merged to become Anatomy, Physiology, and Pharmacology (APP). Before the merger, the three departments each had an existing graduate program, all three of which remain in place today. In the winter of 2018, an external review of the three ‘legacy’ graduate programs was conducted and a number of shortcomings of the programs were identified. These included deficiencies in the program objectives and curriculum, program enrolment and student funding, student outcomes, and administration (see the appendix ‘Response to Graduate Program External Review’ for more details). Discussions held in APP graduate committee and department meetings over the past 15 months have revealed that faculty acknowledge many of these deficiencies and show considerable enthusiasm for correcting them. The information in this package summarizes efforts the APP department has already made and also plan to make to improve graduate programming in the department.

The present request relates to merging the three legacy programs into one, which was the main option suggested in the external review for improving graduate programs in the department. There is strong support from faculty for merging the graduate programs for a number of reasons including:

- A larger graduate program would enable the APP department to offer a wider slate of graduate courses without duplication.
- The student culture of a larger, single department will be stronger than three separate departments.
- Maintaining the discipline-specific departments is not necessary as interdisciplinary research in biomedical sciences is more widespread than in the past.
- The budget for the legacy programs comes from the single APP budget. It would be considerably simpler if one graduate program was managed as the resources could be best allocated to benefit the most students.

Since our merger, the APP department has undertaken a number of initiatives to enrich graduate programming in the department, most of which are in direct response to the suggestions of the external review. Most of these initiatives are designed with a single graduate program in mind. These include:

1. Formation of a single APP graduate committee that oversees operation of the three graduate programs in our department (ACB, Pharmacology, and Physiology). While three legacy graduate chairs are still formally in place (Brian Eames – ACB; Kash Desai – Pharmacology; John Howland – Physiology), all decisions are vetted at the level of the APP graduate committee with a single chair (Howland).

2. We have compiled a point-by-point response to the external review of our graduate programs (see appended document). We believe that we have addressed the most substantive criticisms of our legacy programs with changes that have been/will be implemented during the 2018-2019, 2019-2020, and 2020-2021 academic years.

3. We developed a common graduate student handbook for the 3 programs (appended). In the handbook, we detailed the harmonized requirements and policies among the three existing programs (course requirements, comprehensive exam requirements, minimum stipend for MSc and PhD programs).

4. We developed a common 990 graduate seminar for the 3 programs (syllabus appended). It has been conducted in this manner last year and this year. Feedback obtained from students and faculty suggest that holding this common seminar has increased collegiality and interaction among the streams.
5. We have offered substantial slate of graduate courses this academic year and have plans to implement a series of 1 c.u. courses next year (see appendix ‘Response to External Graduate Program Review’). Our vision is to offer ‘modular’ courses in a manner similar to that which is in place in the Chemistry Department.

6. A signed student-supervisor agreement is required for any student starting after May 1, 2019 (see appended graduate student handbook).

**Impact of the change:** Please describe any potential impact of this change, including any of the following areas if relevant.

Graduate students enrolling in the new merged APP graduate program will benefit from the increase in course offerings, clearer statement of program requirements and expectations, more active culture, and increase in faculty complement of the APP department. Within the APP department, efficiencies in administration, course offerings, and financial issues identified in the previous section will be felt. The APP graduate committee perceives minimal changes to other units. Some additional notes are included below under each heading.

- **Impact on students:** Students already registered in one of the legacy programs will have the option to enter the new program or remain in the program in which they are currently enrolled. New, incoming students will enter the single APP graduate program. We expect the impact on existing students to be minimal as the general degree requirements for the three legacy programs are almost identical. The single merged graduate student handbook will be circulated to new students entering the program.

- **Impact on faculty:** Efforts will be made to advertise and promote the new program. Thus, faculty will see benefit in increased student applications and a stronger identity and culture of the program in the College and at the University. Faculty will also be expected to see larger enrolments in their graduate courses.

- **Impact on staff:** Impact on staff will be minimal as program requirements and numbers of students are unlikely to change dramatically.

- **Impact on alumni:** There will be no effect on alumni as the legacy program names and history are still captured in the new name. Increased efforts to engage past alumni and keep in contact with future alumni are being made (see appended Exit Interview).

- **Effect on other programs, departments, colleges, centres:** As the three legacy programs already exist, there will be minimal effect on other units.

- **Impact on university-wide systems (e.g. SiRIUS, UniFi, PAWS, U-Friend, Library, About US, etc.):** No change other than the administrative work required to update the systems and program of student enrolment.

- **Resource areas such as library resources, physical facilities, and information technology:** No effect as student needs will remain the same as if there were the three legacy programs operating.

- **External impact (e.g. reputation, accreditation, other institutions, high schools, community organizations, professional bodies):** In the future, it is our hope that a larger and more vibrant program will have a greater impact on external bodies than if the smaller legacy programs had remained intact. We believe that the diversity of research done in the larger program will attract more attention in Saskatoon and beyond.

*Please attach any statements or opinions received about this change.*
No formal statements of opinions have been received about this change. At a meeting the APP graduate committee held with the Dean of CGPS on August 27, 2019, Dean Crowe expressed his enthusiasm for merging the graduate programs and encouraged us to submit documentation supporting a name change to the CGPS during the fall, 2019. All APP faculty also support this name change request.

**Costs:** Please describe whether this change will result in any additional costs for the university (ie, repainting signs, technical changes in SiRIUS, PAWS, financial services, etc.).

Costs to the University will be minimal. Some changes to the course naming and course builds will be required. A new and improved website will also be needed but the costs for that will come from the department and college budgets.

**Consultation:** Please describe any consultation undertaken with other university offices, such as Student and Enrolment Services, Institutional Strategy and Analytics, Institutional Planning and Assessment, Financial Services, Facilities Management, Office of the University Secretary, Information Technology Services, etc. Please attach any memos or emails received about this consultation.

None attached. Discussions with the Dean of CGPS, Heather Lukey, and Kelly Clement were positive in this regard.

### 3. Review and Approval Authority

All changes of names for academic entities must be requested by the responsible college, following internal approval by its own approval procedures.

After submission of the Request by the College, the following approval procedures are used, and must be initiated by the College:

- **Changes of course labels** are approved by the Registrar in consultation with the college offering the courses. Any disputes arising over course label changes will be referred to the Academic Programs Committee for resolution. Course label changes are to be distributed for information through the Course Challenge system.
- **Changes of names for colleges and departments** are approved by University Council (following recommendation by the Planning & Priorities Committee) and by the Board of Governors, if the name is honorific.
- **Changes of names for degrees or a degree-level programs** are approved by University Council.
- **Changes of names for fields of specialization** are approved by the Academic Programs Committee of Council.
- **Changes of names for buildings, streets and other physical entities** are approved by the Board of Governors (following recommendation by the Naming Committee).

If you have any questions about this form or these procedures, please contact the Office of the University Secretary or email university.secretary@usask.ca.
Response to Graduate Program External Review (Winter, 2018)

Prepared by the APP Graduate Committee (October, 2019)

Chair: John G. Howland

Members: Stan Bardal, Lane Bekar, Julia Boughner, Veronica Campanucci, Kash Desai, Brian Eames, Helen Nichol, Juan Ianowski

Student members: Raphela Grecco Machado, Andrew Roebuck, Caitlin Wotton

Preamble:

Since merging of the three Departments into Anatomy, Physiology, and Pharmacology (APP) on July 1st 2018, a new APP graduate committee was formed that includes three faculty and one graduate student from each of the three legacy graduate programs (12 members in total). The committee has met every 1-2 months throughout the 2018-19 academic year and has both planned and instituted many changes to existing programs in an effort to: 1) ease a merger into a single APP graduate program; and 2) address deficiencies outlined in the Graduate Programs Review. The program review evaluated programs in six categories, in four of which our graduate programs did not meet the standards for a quality graduate program or there was insufficient data to evaluate. The weaknesses highlighted in each category are summarized below for reference, followed by a point-by-point discussion of changes we have made (or plan to make) to address these deficiencies. In addition, the external review offered two alternative suggestions for envisioning graduate training in the department. Both suggestions involved some effort to identify ‘graduate streams’ or areas of concentration within the graduate program. We are working toward these suggestions in a number of ways including the formation of new course modules which will help to define future streams. In addition, we will have 5 new tenure track faculty in the department within the next 2 years (2 of the 5 have already started). Therefore, we believe that these new faculty will play major roles in defining the future of graduate programming in the department including new streams. As a result of these changes, we have not identified any specific streams at this time. Rather, we are working toward a unifying the three existing ‘legacy’ graduate programs at this time.

From the External Review Report:

1. **Program Objectives and Curriculum** (Does not meet standards)
   a) MSc/PhD program descriptions do not clearly identify/differentiate program objectives.
   b) Student learning outcomes are not adequately or specifically identified.
   c) Lack of student handbook in two programs related to confusion among student expectations.
   d) Insufficient number of courses offered, and consistently scheduled, that highlight faculty expertise.
   e) No indication of any course or program evaluation by students in the program.

2. **Program Enrolment and Student Funding** (Does not meet standards)
   a) Funding packages do not cover minimum period of time in program.
   b) Enrolment is low and decreasing.
c) Low number of PhD students limit project complexity and thus limit contributions to faculty research.

d) Eligible students are not consistently applying for scholarships.

e) Little recruiting effort and poor on-line information and resources for potential graduate students.

3. **Student Outcomes** (insufficient data)

a) Graduate students are not publishing peer-reviewed journal articles in great numbers.

b) Emphasis on MSc programs (including BSc/MSc) result in limited opportunities to publish.

c) Program completion times are long, raising concern about differential standards/requirements.

4. **Learning Environment** (meets standards)

5. **Faculty Profile** (meets standards)

6. **Administration** (Does not meet standards)

a) No evidence of coordinated graduate student recruitment efforts. Recruitment is targeted towards the BSc/MSc program. Number of international students is low.

b) No evidence of forward planning for program advancement/improvement ("where are we now?" and "where are we going?")

**Point-by-point response:**

1a-c) Upon review of several graduate handbooks and information across campus (Anatomy & Cell Biology, Physiology, Veterinary Biomedical Sciences, College of Pharmacy and Nutrition), a new graduate student handbook for the APP graduate program has been created that clearly outlines and differentiates objectives and learning outcomes of both the MSc and PhD programs. This handbook outlines all timelines as well as student, supervisor, and advisory committee roles/expectations. A student/supervisor agreement form is also contained within this document as an appendix and is required for new students beginning a program after May 1, 2019. This handbook is sent to all (in-coming and current) graduate students each year in September and serves as the backbone of the programs to ensure consistency and reduce confusion surrounding expectations and timelines.

1d) For the 2019-20 academic year, 6 graduate courses are being offered by APP faculty (see list below). In addition, faculty commitments for the creation of 10 new single credit unit modules for 2020-21 academic year will further enhance student choice in graduate course selections.

**2019-20 course offerings:**

- ACB 801.6 (Gross Anatomy, Cooper)
- ACB 821.3 (Advanced Seminar in Developmental Biology, Boughner and Eames)
- ACB 824.3 (Current Topics in Myelinating Glia, Verge)
- ACB XXX.3 (Comparative Vertebrate Histology, Popescu)
- PCOL 850.6 (Graduate Pharmacology, Desai)
- PHSI 860.3 (Advanced Seminar in Neuroscience, Howland)

**2020-21 course offerings:**

One-credit modules (committed):

- Stan Bardal: Recent Advances in Drug Design
Stan Bardal/Kash Desai/Lixin Liu: Advances in Cardiorespiratory Pharmacology
Lane Bekar: Understanding Synaptic Electrophysiology
Veronica Campanucci: Ion Channels and Receptors in Human Diseases
Jen Chlan: Neuroanatomy
Kash Desai: Role of Gastrotransmitters in the Cardiovascular System
Brian Eames: Skeletal Cell and Developmental Biology
John Howland: Systems Neuroscience I
Juan Ianowski: Regulation and Coordination of Ion Channels, Transporters, and Pumps
Val Verge: Basics of Cell Signaling in Neurobiology

1e) All students will be asked to complete course evaluations prior to submission of final grades to graduate studies. All students will be asked to evaluate the graduate program as part of a check list for completion of program requirements to be submitted with final thesis to graduate studies (see appended Exit Interview document).

2a) We have adopted a minimum funding model for all students in the APP graduate programs ($18,000/year for 2 years for the M.Sc.; $21,000/year for 4 years for the PhD).

2b,c) Despite the fact that the number of APP faculty taking on graduate students has been decreasing, the total student numbers within the three programs have remained consistent at around 40 for the past 5 years. It is true that the bulk of these are in the BSc/MSc and MSc programs. We hope the planned addition of the new one-credit module regarding careers in science will help show the students the value of obtaining a PhD and increase our PhD numbers. In addition, the hiring of new faculty (2 hires completed, 3 more expected in the near future) should increase the total number of students in our programs.

2d) Confusion surrounding scholarships will be reduced with the addition of a list of scholarships with typical deadlines as an appendix to out newly created Graduate Student Handbook (needs to be created). David Cooper, the Assistant Dean of Graduate Studies in the College of Medicine, has also worked to harmonize graduate scholarship applications with the College. However, it is really up to the Supervisors to ensure their students are funded to the minimum levels set out in the handbook. The required Student/Supervisor agreement at the outset of program study will help ensure these minimum funding levels are achieved and maintained.

2e) The first step required to improve recruiting is to overhaul the new APP program on-line information and resources. The College of Medicine has developed a new departmental website, which we will continue to update to provide the best information to prospective students. Unfortunately, we don’t have control over our departmental website.

3a) We have compiled a list of peer-reviewed publications for all graduate students who have graduated from our legacy programs over the past 6 years (2014 to the present). During this time, 60 students have graduated from our programs (38 MSc; 22 PhD). These students contributed 160 peer-reviewed publications that could be indexed on PubMed. Publications per student averaged 2.2/MSc student (82 papers) and 3.5/PhD student (78 papers).

3b) Addressed in 2c above.

3c) Addressed in 1a-c above. The new handbook with clearly defined timelines and expectations of advisory committees will help ensure timely completion going forward.
6a) Addressed 2 above.

6b) As outlined in 1d above, course development has the largest impact on where we are going. Creation of the one-credit module format greatly increases the flexibility within the different streams and program in general.

6) A general comment regarding administrative matters: we have been fortunate this past year to have a single graduate administrator for the three legacy programs which has made streamlining our programs considerably easier and more efficient.
Preamble. The Dept of APP is continuously striving to meaningfully improve our graduate program’s efficacy in teaching and training our MSc and PhD students in scientific research and communication. One the most effective ways for our Grad Program to improve is to hear and thus have the opportunity to act upon constructive critiques from students who have recently journeyed through our program. Collecting feedback, positive and negative, is the aim of this exit interview. You are not obliged to complete this form, but it would really help us if you accepted our invitation to do so.

Disclaimer: Completing this form will in no way affect your capacity to graduate from our program. All responses will be collated, anonymized and held by the Dept. of APP Graduate Program Administrator. Anonymized feedback will be shared and used within the Dept. of APP only.

Thanks in advance for your input!

Reflecting on your time in-program, including grad coursework, instructional training (e.g., T.A.’ing), hands-on research experience, mentoring in data collection and analysis, research article publication, thesis writing, and other skill development, as well as the administration of the grad program at the level of APP and at the level of the CGPS, what would you suggest that the APP Graduate Program:

(Please feel free to list more than one action item per category. It would be extra helpful if you would also share the reasoning behind your recommendations.)

STOP doing immediately?

START doing immediately?

CONTINUE doing?
Dear Recent Graduate of Anatomy, Physiology & Pharmacology,

CONGRATULATIONS on completing your graduate program of study in our department!

Keeping in touch with Alumni helps us to develop a more enriching, effective graduate program. This includes inviting our Alumni to come back and provide career advice to students; as well as helping us to understand the types of jobs and careers that our Alumni pursue and succeed in.

To that end, do we have your permission to contact you in future? Please circle your preference:

YES  NO

If “YES” (thank you!), then please provide your preferred means of contact and contact details below:

Email ________________________________________________

Phone ( ___ ) ________________________________

Mailing address:

Street/house or apt #:____________________________________________________________

City: ________________ Province/State: ________________ Postal/Zip code: __________

Country: ______________________________

Other contact info (including social media accounts) ________________________________
Policies and Procedures

Graduate Program in

Anatomy, Physiology, and Pharmacology

University of Saskatchewan
1. Introduction

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

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. The Department offers opportunities to transition BSc. Hon. work into an MSc, along with regular MSc and PhD graduate programs. The Department has faculty and students with diverse research interests in neuroscience as well as cardiovascular, metabolic, developmental and respiratory 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 this department to prepare you to teach and communicate scientific information.

The departmental Graduate Program 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. All aspects of the program, including conferral of degrees, are ultimately governed by the College of Graduate and Postdoctoral Studies, which sets or approves the policies and procedures that departments follow. The Policies and Procedures Manual of the College of Graduate and Postdoctoral Studies can be found at:


2. How do I apply for graduate studies at the University of Saskatchewan?

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

1. Combined Bachelor of Science/Master of Science (B.Sc./MSc): This is a project- and thesis-based program only offered to outstanding students enrolled in an APP undergraduate honours program. Students should inform their supervisors early in their program (first term) of their interest in continuing into the B.Sc./MSc Program. Admissions will be reviewed on a case-by-case basis by the Graduate Committee based on academic performance. Students must be admitted to the graduate program (and submit a program of studies) by June 1st. This combined program allows students to continue their undergraduate research project and fulfill additional requirements to obtain an MSc. A strict timeline is expected to not exceed 12-15 months immediately following BSc graduation.

2. Master of Science (MSc): This is a project- and thesis-based program offered to students holding a four-year degree from a recognized university in an academic discipline relevant to the proposed field of study. The expected length of the program is 2 years.

3. Doctor of Philosophy (PhD): This is a project- and 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 is 4 years.

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 (http://medicine.usask.ca/department/schools-divisions/biomedical.php). 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) (http://www.usask.ca/cgps/) 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.

After you are accepted into the CGPS, you will need to register with the University of Saskatchewan and pay your tuition and fees. Complete information is available at the CGPS website: http://grad.usask.ca/admissions/how-to-apply.php#Beforeyouapply. Students in the MSc programs need to register for APP 994 and APP 990. Students in the PhD program need to register for APP 996 and APP 990. You will need to register for additional courses throughout your graduate program according to your Program of Studies (see sections 4B and 6B below). Upon your arrival at the University of Saskatchewan, you will need to meet with the departmental Graduate Assistant who will help you get settled in the Department.

3. 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, the Department graduate assistant and staff in the CGPS. As a graduate student at the University of Saskatchewan, you are enrolled in the CGPS, but your graduate program is administered at the Department level, which operates within the regulations provided by the 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 and the graduate assistant will always be available to help with problems. Graduate students are specifically responsible for:

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 http://www.usask.ca/integrity/
4. timely registration for courses and payment of fees owing
5. maintaining of appropriate academic performance (minimum 70% GPA in coursework)
6. attending and participating in the departmental seminar series (APP990)
7. in consultation with supervisor, establish members of 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 their 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.

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 the research can proceed 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 qualifying and comprehensive examinations and thesis defenses.

The advisory committee consists of the following members (minimum of 3 for MSc, 5 for PhD):

1. Supervisor - a member of the faculty of the CGPS (adjunct professors included). Co-supervisors are counted along with the Supervisor as one member.
2. Advisory committee chair – the Department Graduate Chair or designate (typically a member of committee)
3. Additional Members - a minimum of 1 (MSc) or 2 (PhD) faculty members of the Department of Anatomy, Physiology and Pharmacology. 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 member of the Department of Anatomy, Physiology and Pharmacology but must be a member of the graduate faculty of CGPS or else granted permission by the Dean, CGPS.
5. 

The supervisor, the student and the graduate chair most often guide the decision-making process for committee member selection. Collectively, committee members should have sufficient experience and knowledge to be able to effectively assist the student with research design, background, methods, and analysis.

D. Anatomy, Physiology and Pharmacology graduate chair

The graduate chair offers advice and information regarding Department and CGPS regulations to ensure consistency among advisory committees and among students within the Department. The graduate chair 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 is responsible for ensuring chairing and recording the minutes for annual advisory meetings, qualifying and comprehensive exams and defenses. The graduate chair also oversees administrative aspects of scholarship and stipend awards/distribution. At the university level, the chair acts as liaison between the Department and the CGPS.

E. Graduate assistant

The graduate assistant 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 assistant is responsible for scheduling meetings, exams/defenses, and for maintaining and submitting appropriate paperwork to CGPS, including relevant information regarding scholarships.

F. The Department 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,
the graduate assistant and at least one other Department faculty member.

4. **Information for students in the MSc or PhD Programs**

A. **Program Objectives**

The primary responsibility of the Department of Anatomy, Physiology and Pharmacology 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 Anatomy, Physiology and Pharmacology. A general description of learning outcomes are found in the College of Graduate and Postdoctoral Studies policy and procedure documents ([https://cgps.usask.ca/policy-and-procedure/governance-membership/degree-level-learning-outcomes.php](https://cgps.usask.ca/policy-and-procedure/governance-membership/degree-level-learning-outcomes.php)).

*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. In order to meet this goal, MSc students should:

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

*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 and presentation of results at scientific meetings is mandatory at this level. Given an experimental question in any scientific field, a PhD student should be able to:

1. Find relevant information to create/rationalize a hypothesis that will address the experimental question.
2. Seek out relevant information/resources concerning methodology necessary to adequately test the hypothesis.
4. Analyze, interpret and discuss the results in the context of the current literature leading to publication.
5. 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 committee members and identify some of the academic courses you feel that you need. Departmental course requirements for the MSc program is 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 transferring to the PhD program from the MSc program do not require, but may be subject to, additional coursework if the advisory committee deems it appropriate.

2. Arrange and hold your first introductory committee meeting (see FAQ How do I set up a committee meeting?). At this meeting, you will discuss your proposed research and the committee will provide advice on coursework. A progress report is not required for this meeting but you will need to send an email to your committee members prior to the meeting which indicates the area of your research and your proposed coursework, both credit and non-credit.

3. Coursework will include:
   - A list of academic courses which fulfill the credit requirements for your program.
   - Graduate Research (APP 994 for MSc or 996 for PhD) and Graduate Seminar (APP 990) courses.
   - Additional requirements such as Graduate Research Ethics and Integrity Training Course (GPS 960) required for all students, UCACS Education and Training Program (Animal Care/Handling GPS 962) required for students conducting research involving animal subjects, and/or Tri-Council Policy Statement: Ethics Conduct for Research involving Humans (TCPS) Tutorial (GPS 961) required for students conducting research involving human subjects.
   - 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 Thinking Critically: Professional Skills for Global Citizens (GPS 984); Introduction to University Teaching (GPS 989); Academic Preparation for International Graduate Students (GPS 981). These courses have no credit or fees, but require registration. Registration in these courses is limited to current graduate students and postdoctoral fellows 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 your brief research proposal (see FAQ, what should I include in a research proposal?).
2. You will need to have a committee meeting to have your Program of Studies (POS) approved by your advisory committee (see FAQ How do I set up a committee meeting?). The Program of Studies lists courses required for your individualized research program, as well as the research proposal. When the committee has approved it, the POS is submitted to the graduate chair and graduate assistant 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 committee and the graduate assistant with an annual progress report (see FAQ What should I include in my annual progress report?). The Supervisor should review the written progress report before it is submitted. 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 which require input from your committee members. Remember that your committee members have already received and reviewed your progress report.

E. **In the final year of your program**

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 committee needs to be provided with a standard permission-to-write document at least 5 working days before the meeting. The Supervisor should review the permission-to-write document before it is submitted. 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.

2. Write your thesis (see FAQ: How should I format my thesis? and the CGPS website https://students.usask.ca/graduate/thesis-preparation.php#Beforebeginning and review recent theses from the Department available online through the library (http://ecommons.usask.ca/handle/10388/381).

3. 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.

4. After feedback from 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 assistant who will deliver the thesis to the external examiner for MSc students, or submit it to CGPS for PhD students. External examiners participate in the examination of theses to provide an independent assessment of the quality of the graduate research. The external examiner, (faculty member at the UoS external to the department for MSc; external to University for PhD), will have been previously selected by the advisory committee as per CGPS guidelines. The student will not have any formal or informal communication with the external examiner until the date of the defense. CGPS requires 3 weeks' notice for an MSc thesis defense and 6 weeks' notice for a PhD thesis defense.

5. Defend the thesis. Students are required to give a public seminar (~20 minutes) prior to the defense of the thesis. After the seminar, the examining committee reconvenes 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. The decision to have an open or closed defense lies with the student.

6. After successful defense of the thesis, students should be prepared to edit the final version of the thesis as directed by committee members and the external examiner. 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.

7. 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 on or before the April 15 (or the previous Friday if that date falls on a weekend) will be eligible to receive their degree at Spring Convocation. Note that an online application to graduate must be submitted online through PAWS by March 31. For Fall Convocation, the application to graduate must be submitted by August 31, and all graduate program requirements must be satisfied by the September term add/drop deadline. 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. Students will arrange for hard copies of the thesis to be bound. The supervisor is normally expected to provide funds to cover the binding costs for copies of the theses (If requested). The student also should work closely with their advisory committee and with the graduate assistant in order to ensure all necessary documents have been received in Anatomy, Physiology and Pharmacology 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.

8. Graduate!

5. Transfer from an MSc program to a PhD program

CGPS regulations regarding transfer from an MSc program to a PhD program state the following:

Transfer from an MSc program to a PhD program should 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 from an MSc program to a PhD program must be initiated through a formal meeting of the student's advisory committee that forwards its recommendation through the academic unit to the CGPS. The following conditions must be met:

1. CGPS regulations regarding transfer from an MSc program to a PhD program state the following:
1. 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, and has achieved a high-academic standing (>80% GPA) in these 9 credit units.

2. There is evidence of good writing and oral communication ability.

3. There is evidence the student has requisite research skills and knowledge to be able to successfully complete a PhD dissertation.

4. The student has successfully completed the PhD Qualifying Examination (see section 6 below) prior to being recommended for transfer.

Once permission to transfer is given, a new Program of Studies form must be submitted if applicable.

6. Qualifying and Comprehensive Examinations

Students in the MSc program are not required to take a qualifying or comprehensive examination.

Results of qualifying or comprehensive exams may be appealed on substantive or procedural grounds.

Qualifying Examination

This exam is used for MSc students wishing to transfer to a PhD program as outlined above (section 5), and it is a requirement for all PhD students; however, for student’s with a defended MSc thesis in the research area, the advisory committee may waive that requirement. The Qualifying Examination is designed to test the student’s general scientific knowledge, familiarity with the scientific literature in his or her area of interest, and suitability for study at the PhD level. It has both written and oral components. The written component is a formal proposal for the PhD research project. It must be given to members of the Advisory Committee a minimum of one week beforehand, and should contain the following components:

A. Descriptive Title, Name, and Date
B. Background
C. Specific Aims
D. Rationale
E. Preliminary Results (MSc work if transfer)
F. Proposed Research Plan and Methodology
G. Significance

The oral component includes a 15 – 20 minute oral presentation of the proposed research plan and methodology. This is followed by questions from members of the Advisory Committee. Questioning by the Advisory Committee is designed to determine whether the student has a sufficient command of the area of research interest to ensure that there is a high probability of success at the PhD level.

If the student fails the qualifying examination on the first try, a second examination can be undertaken within three months, with permission of the Dean of CGPS. Note that for the purpose of transferring from an MSc to a PhD, there is no opportunity for a second attempt. A second failure disqualifies the student from continuing in a PhD program.

Comprehensive Examination

The CGPS guidelines for PhD comprehensive examinations state that the comprehensive examination should cover topics cognate to the candidate’s field of research and is used to determine whether the student has a mature and substantive grasp of the field as a whole. The Department should establish and make available clear, written and specific regulations regarding the comprehensive examination, within CGPS regulations.

All students in a PhD program are required to pass a Comprehensive Examination. The examination will be given by the advisory committee, with additional examiners added at the discretion of the advisory committee, and/or the Departmental Graduate committee (see below). The examination should be conducted after all course work has been completed and the research is well underway. The examination should be completed within the second year of the program, and not later than the third year in program. Sufficient time should be allotted in case there is a need for a re-examination. The student may choose (with approval of
Supervisor) to be examined in either an oral examination format, or a written/oral grant proposal format. The student should meet with their Advisory Committee to select their choice of exam format. The student will have a minimum of 60 days’ notice for the comprehensive examination. The student must stop lab work four weeks prior to the exam and concentrate on studying for the oral or written examination.

1) ORAL EXAMINATION FORMAT

The oral format of the comprehensive examination is designed to test the student’s general competence in three major sub-disciplines in one of anatomy, physiology or pharmacology cognate to the candidate’s field of research chosen from a list provided by the thesis advisory committee. The student is also tested for specific knowledge in the area of research specialization.

The examining panel will be chaired by the Chair of the Advisory Committee. The Examiner in the area of research specialization will be the student’s Supervisor. Additional Examiners will be chosen as appropriate for the selected sub-disciplines. The student should meet with the additional examiners assigned to the sub-discipline to determine the scope of the questions – usually a textbook is recommended. In general, questions of increasing difficulty are asked to assess the breadth of student knowledge. Following the oral examination, the examining panel assigns a grade of Pass or Fail. In the event of a failure, the student may request to retake the comprehensive examination in those sub-disciplines where performance is judged to be inadequate. A second attempt must be approved by the Dean of CGPS or designate. In this case, the second attempt must take place within two to six months following the first examination, depending on how many sub-disciplines require re-examination. The student will be required to discontinue and exit the PhD program in the event of a second failure.

2) GRANT PROPOSAL FORMAT

The objective of this examination format is to provide PhD candidates with an opportunity to apply their academic and practical scientific training toward the development and defense of a scientific research proposal. The examination will have both an oral and a written component. The written component will be a completed NSERC Discovery Grant application (Common CV, Research Proposal, Research Summary, Budget, etc.). The topic of the Research Proposal should be within the broader area of the student’s training but should not be directly related to the thesis research. Prior to grant preparation, the student will identify 3 research ideas they would be interested in pursuing and will circulate the title and major objectives for each project to their advisory committee members. Committee members will decide collectively on one of the topics and the student will then proceed to prepare the grant application. During grant preparation, the graduate chair can serve as a mentor but no intellectual input is allowed from committee members or other faculty members. The oral component of the comprehensive examination will be based on a defense of the grant application, and on knowledge of background information associated with the proposal and with the student’s area of specialization. Other related research areas, and pertinent topics such as scientific methodology, experimental design, hypothesis formulation and testing, and statistical analysis would be included as appropriate. Depending upon the grant topic and the range of expertise of the advisory committee, members of the advisory committee and/or the Departmental Graduate committee may choose to select additional examiners. In addition, the student is required to present a brief (15 minute) summary of the research proposal at the beginning of the examination. The written component, grant application and proposal, must be provided to the committee members 5 working days prior to the comprehensive exam meeting. The Comprehensive Examination may be repeated once with permission of the Dean of CGPS or designate. A second failure will result in the student being required to discontinue from the program.

7. Information on scholarships and graduate student stipend funding

The following list identifies the most common sources of stipend funding for graduate students in Anatomy, Physiology and Pharmacology, although they are not the only sources. Eligibility, stipend amounts, and application procedures for these and other sources of stipend funding are available on the CGPS website https://grad.usask.ca/funding/scholarships.php#University. The graduate student funding situation should be clearly stipulated in the Graduate Student-Supervisor Agreement (Appendix C) that is signed and
filed with your program of studies with CGPS. The Department will not allow a student to proceed with the formal application process until funding required for student stipend and operating funds for the project are secured. Students will not be admitted without funding.

a. Application to the College of Medicine Graduate Awards program (CoMGRAD) is strongly encouraged as this can be used as matching funds or top-up if other external awards are also granted.

b. NSERC/CIHR – The CGPS provides a $6,000 annual award for holders of NSERC-PGS and CIHR scholarships.

c. U of S Dean’s scholarships, including International Dean’s scholarships, are open to new students with a GPA of 85% or better. Students are nominated by faculty or the Department.

d. U of S Awards - open to all graduate students. Requirements for U of S Scholarships and Fellowships include a minimum 80% GPA. A call for applications from the Graduate chair is sent out to graduate students in March each year.

   i. U of S Graduate Scholarships (College of Medicine Devolved Scholarships)
   ii. GTF – Graduate Teaching Fellowships
   iii. GTA – Graduate Teaching Assistantships

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.

8. 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 College of Medicine offers a number of Graduate Teaching Assistantships each year to students deemed to be making excellent progress in their thesis research.

Participation as a Graduate Teaching Assistant will bring the student into direct contact with undergraduate students and afford an appreciation of the complexities 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 through the collective agreement (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 Graduate Teaching Assistantship or a Graduate Teaching Fellowship (see Section 7). A maximum of 10 hours/week may be spent in teaching. Duties assigned to students holding Graduate Teaching Appointments will be in accordance with collective agreement guidelines. Teaching assignments will be determined by the Department Head.

9. Time in program, leaves of absence

Official program time limits (maximum) are five years for the MSc program, and six years for the PhD program. However, the Department recommends a typical time of less than two years for an MSc and less than five years for a PhD. This time is measured from the beginning of the first term of registration for work which is included in the Program excluding any periods of approved leave. Typically May 1st following program completion for students transitioning from the BSc to the MSc program, or May 1st, September 1st or January 1st for MSc and PhD programs.
Leaves of absence are available to students for compassionate, medical, or parenting reasons (See parental leave policy - Appendix B). Reasonable accommodation is normally made. Where possible, leaves of absence from CGPS are granted in four-month blocks to coincide with the registration terms (Sept. 1 to Dec. 31; Jan. 1 to Apr. 30; May 1 to Aug. 31). Parental leave may be granted for up to 16 months.

Requests for leaves should be discussed as early as possible with supervisors so that appropriate accommodations can be made prior to the beginning of the leave. Requests should be made in writing by the student. The Dean of the CGPS, or designate, 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 though nominal student fees are assessed. 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 normally 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: Frequently Asked Questions (FAQ)

A.1 How do I set up a committee meeting?

In consultation with your supervisor, you are responsible for deciding when you should have a 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. 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 (at 1 month):
  - Introduction of student
  - Introduction of research topic (be prepared to present an introduction and summary of the proposed research)
  - Proposed coursework
  - Source of research and stipend funding

- For the second meeting (within 4 months):
  - Proposal defense and approval
  - Program of Studies approval

- For annual meetings
  - Research progress
  - Progress in coursework
  - Stipend funding

A.2 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.

1. Background information. (2 – 5 pages)
   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.

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 results.

A.3 What should I include in my annual progress report?

A. Research Progress (4 pages max, excluding references):
   1. Abbreviated literature review, providing the rationale for experiments
   2. Thesis Objectives, Hypotheses
   3. Progress on each objective – include summary of methods, provide results, indicate whether manuscript is being drafted, under review or published
   4. An updated timeline.
   5. Research presentations – posters or seminars, conferences attended, awards received etc.

B. Summary of non-research activities
   1. Courses completed and marks, if available
   2. Teaching responsibilities
   3. Stipend funding
   4. Any other activities which have an impact on your graduate program.

A.4 What should I include in my permission to write report?

The Permission-to-Write meeting allows the advisory committee to survey the structure of the thesis as a unified piece of work and allows committee members to provide input on how the student intends to structure the thesis. With this in mind, the Permission-to-Write report should include:

9. A 1-2 page summary for each proposed chapter, each of which should include
   a. the rationale, specific objectives and hypotheses for that chapter (if not included in (2) above) and
   b. a summary of the most significant findings for each chapter, illustrated with 1 - 3 pertinent figures with complete captions (i.e. NOT all the figures for each chapter). There should be an indication of which chapters are published, which are submitted and which have not yet been submitted for publication.
10. A final summary statement indicating whether the overall objectives/hypotheses of the thesis have been addressed.
A.5 How should I format my thesis?

Theses must follow a consistent editorial format. You should consult the CGPS guidelines (available at https://students.usask.ca/graduate/thesis-preparation.php, and review recent theses from the Department available through CGPS (http://ecommons.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 statement of what you predict will happen.
   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

A.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. In addition, travel awards are available from CGPS or from the College of Medicine. For information on these, contact the graduate assistant.
Appendix B: College of Medicine Parental leave policy

College of Medicine (CoM) Graduate Parental Leave Grant
This is a trial program being launched for a three year term beginning September 2018 and extending to August 2021. This program may be superseded by a University-level program during this term, at which point the CoM program will be revised and possibly withdrawn.

Description: A CoM graduate student may apply for financial assistance during a leave to serve as the primary care-giver immediately following the birth of a child occurring prior to the completion of the student’s program.

Amount: $4000/6 month period paid via monthly installments. Renewable once with a lifetime total of $8000 per student.

Funding Source: OVDR (Assistant Dean Graduate Studies Discretionary Fund).

Eligibility Criteria:
- CoM Graduate Student in good standing for at least two terms (8 months) prior to the start of the leave
- M.Sc. student within first two years at start of leave
- Ph.D. or M.Sc./Ph.D. transfer student within first five years at start of leave
- Funding level of $16,000/yr or greater from scholarship(s), stipend, or employment in the CoM (e.g. as a TA or graduate teaching fellowship)
- Leave granted by CGPS
- Expected to return to full-time studies following the leave
- Primary caregiver
- Not receiving any additional parental benefits (e.g. Parental funding from Tri-council scholarships, EI etc.).

How to Apply:
- Completed CoM Graduate Parental Leave Grant Form
- Letter from Supervisor confirming funding level and duration for the student, student progress in program and expected time needed to complete their program upon the completion of the leave
- Doctor’s note

Note: CoMGRAD scholarships may be deferred for the period of a leave approved by CGPS for parental reasons.
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 http://www.usask.ca/cgps/
**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:

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**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 University 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 D: List of available scholarships

To be developed
Consultation with the Registrar Form

This form is to be completed by the Registrar (or his/her designate) during an in-person consultation with the faculty member responsible for the proposal. Please consider the questions on this form prior to the meeting.

Section 1: New Degree / Diploma / Certificate Information or Renaming of Existing

1. Is this a new degree, diploma, or certificate?  
   Yes ☑️ No ☑️
2. Is an existing degree, diploma, or certificate being renamed?  
   Yes ☑️ No ☑️
   If you've answered NO to each of the previous two questions, please continue on to the next section.

3. What is the name of the new degree, diploma, or certificate?  

4. What is the credential of this new degree, diploma, or certificate? [Example - D.M.D. = Doctor of Dental Medicine]

5. If you have renamed an existing degree, diploma, or certificate, what is the current name?

6. Does this new or renamed degree / diploma / certificate require completion of degree level courses or non-degree level courses, thus implying the attainment of either a degree level or non-degree level standard of achievement?  
   Yes ☑️ No

7. If this is a new degree level certificate, can a student take it at the same time as pursuing another degree level program?  
   Yes ☑️ No

8. If YES, a student attribute will be created and used to track students who are in this certificate alongside another program. The attribute code will be:

9. Which College is responsible for the awarding of this degree, diploma, or certificate?

10. Is there more than one program to fulfill the requirements for this degree, diploma, or certificate? If yes, please list these programs.

11. Are there any new majors, minors, or concentrations associated with this new degree / diploma / certificate? Please list the name(s) and whether it is a major, minor, or concentration, along with the sponsoring department.
   [One major is required on all programs [4 characters for code and 30 characters for description]

12. If this is a new graduate degree, is it thesis-based, course-based, or project-based?
Section 2: New / Revised Program for Existing or New Degree / Diploma / Certificate Information

1. Is this a new program?
   Yes [ ] No [X]
   Is an existing program being revised?
   Yes [ ] No [X]
   If you've answered NO to each of the previous two questions, please continue on to the next section.

2. If YES, what degree, diploma, or certificate does this new/revised program meet requirements for?

3. What is the name of this new/revised program?

4. What other program(s) currently exist that will also meet the requirements for this same degree(s)?

5. What College/Department is the academic authority for this program?

6. Is this a replacement for a current program?
   Yes [ ] No [ ]

7. If YES, will students in the current program complete that program or be grandfathered?

8. If this is a new graduate program, is it thesis-based, course-based, or project-based?
Section 3: Mobility

Mobility is the ability to move freely from one jurisdiction to another and to gain entry into an academic institution or to participate in a learning experience without undue obstacles or hindrances.

1. Does the proposed degree, program, major, minor, concentration, or course involve mobility? Yes ☐ No ☑

   If yes, choose one of the following:
   - Domestic Mobility (both jurisdictions are within Canada)
   - International Mobility (one jurisdiction is outside of Canada)

2. Please indicate the mobility type (refer to Nomenclature for definitions).
   - Joint Program ☐
   - Joint Degree ☐
   - Dual Degree ☐
   - Professional Internship Program ☐
   - Faculty-Led Course Abroad ☐
   - Term Abroad Program ☐

3. The U of S enters into partnerships or agreements with external partners for the above mobility types in order to allow students collaborative opportunities for research, studies, or activities. Has an agreement been signed? Yes ☐ No ☑

4. Please state the full name of the agreement that the U of S is entering into.

5. What is the name of the external partner?

6. What is the jurisdiction for the external partner?
Section 4: New / Revised Major, Minor, or Concentration for Existing Degree Information (Undergraduate)

1. Is this a new or revised major, minor, or concentration attached to an existing degree program? [ ] Yes [ ] No [ ] Revised
   If you've answered NO, please continue on to the next section.

2. If YES, please specify whether it is a major, minor, or concentration. If it is more than one, please fill out a separate form for each.

3. What is the name of this new / revised major, minor, or concentration?

4. Which department is the authority for this major, minor, or concentration? If this is a cross-College relationship, please state the Jurisdictional College and the Adopting College.

5. Which current program(s), degree(s), and/or program type(s) is this new / revised major, minor, or concentration attached to?

Section 5: New / Revised Disciplinary Area for Existing Degree Information (Graduate)

1. Is this a new or revised disciplinary area attached to an existing graduate degree program? [ ] Yes [ ] No [ ] Revised
   If you've answered NO, please continue on to the next section.

2. If YES, what is the name of this new / revised disciplinary area?

3. Which Department / School is the authority for this new / revised disciplinary area? (NOTE - if this disciplinary area is being offered by multiple departments see question below.)
   *Anatomy Physiology Pharmacology [APPY - Anat Physio Pharma - code and description for student system]*

4. Which multiple Departments / Schools are the authority for this new / revised disciplinary area?

4a. Of the multiple Departments / Schools who are the authority for this new / revised disciplinary area and what allocation percentage is assigned to each? (Note - must be whole numbers and must equal 100.)

4b. Of the multiple Departments / Schools who is the primary department? The primary department specifies which department / school policies will be followed in academic matters (ex. late adds, re-read policies, or academic misconduct). If no department / school is considered the primary, please indicate that. (In normal circumstances, a department / school with a greater percentage of responsibility - see question above - will be designated the primary department.)

5. Which current program(s) and / or degree(s) is this new / revised disciplinary area attached to?

*Master of Science-Thesis [MSC-T-GP], Doctor of Philosophy (Transfer) [PHD-TRANS-GP], Doctor of Philosophy [PHD-GP]*
Section 6: New College / School / Center / Department or Renaming of Existing

1 Is this a new college, school, center, or department?  
   Yes  No  X
   Is an existing college, school, center, or department being renamed?  
   Yes  No  X
   Is an existing college, school, center, or department being deleted?  
   Yes  No  X
   If you've answered NO to each of the previous two questions, please continue on to the next section.

2 What is the name of the new (or renamed or deleted) college, school, center, or department?

3 If you have renamed an existing college, school, center, or department, what is the current name?

4 What is the effective term of this new (renamed or deleted) college, school, center, or department?

5 Will any programs be created, changed, or moved to a new authority, removed, relabelled?

6 Will any courses be created, changed, or moved to a new authority, removed, relabelled?

7 Are there any ceremonial consequences for Convocation (i.e. New degree hood, adjustment to parchments, etc.)?
Section 7: Course Information

1. Is there a new subject area(s) of course offering proposed for this new degree? If so, what is the subject area(s) and the suggested four (4) character abbreviation(s) to be used in course listings?
   [Yes - Anatomy Physiology Pharmacology [APPY - Anat Physio Pharma - code and description for student system]

2. If there is a new subject area(s) of offerings what College / Department is the academic authority for this new subject area?
   [College of GP / Department of APPY - both currently exist in student system]

3. Have the subject area identifier and course number(s) for new and revised courses been cleared by the Registrar?
   [Yes]

4. Does the program timetable use standard class time slots, terms, and sessions?
   [Yes X No ]
   If NO, please describe.

5. Does this program, due to pedagogical reasons, require any special space or type or rooms?
   [Yes No X]
   If YES, please describe.

NOTE: Please remember to submit a new "Course Creation Form" for every new course required for this new program / major. Attached completed "Course Creation Forms" to this document would be helpful.
Section 8: Admissions, Recruitment, and Quota Information - as per current set-up

1. Will students apply on-line? If not, how will they apply?

2. What term(s) can students be admitted to?

3. Does this impact enrollment?

4. How should Marketing and Student Recruitment handle initial inquiries about this proposal before official approval?

5. Can classes towards this program be taken at the same time as another program?

6. What is the application deadline?

7. What are the admission qualifications? (IE: High school transcript required, grade 12 standing, minimum average, any required courses, etc.)

8. What is the selection criteria? (IE: If only average then 100% weighting; if other factors such as interview, essay, etc. what is the weighting of each of these in the admission decision.)

9. What are the admission categories and admit types? (IE: High school students and transfer students or one group? Special admission? Aboriginal equity program?)

10. What is the application process? (IE: Online application and supplemental information (required checklist items) through the Admissions Office or sent to the College/Department?)

11. Who makes the admission decision? (IE: Admissions Office or College/Department/Other?)

12. Letter of acceptance - are there any special requirements for communication to newly admitted students?

13. Will the standard application fee apply?

14. Will all applicants be charged the fee or will current, active students be exempt?

15. Are international students admissible to this program?
Section 9: Government Loan Information - as per current set-up

NOTE: Federal / provincial government loan programs require students to be full-time in order to be eligible for funding. The University of Saskatchewan defines full-time as enrollment in a minimum of 9 credit units (operational) in the fall and/or winter term(s) depending on the length of the loan.

1 If this is a change to an existing program, will the program change have any impact on student loan eligibility?

2 If this is a new program, do you intend that students be eligible for student loans?

Section 10: Convocation Information (only for new degrees) - not applicable

1 Are there any ‘ceremonial consequences’ of this proposal (ie. New degree hood, special convocation, etc.)?

2 If YES, has the Office of the University Secretary been notified?

3 When is the first class expected to graduate?

4 What is the maximum number of students you anticipate/project will graduate per year (please consider the next 5-10 years)?

Section 11: Schedule of Implementation Information

1 What is the start term?

202005 [May 2020]

2 Are students required to do anything prior to the above date (in addition to applying for admission)?

Yes ☐ No X ☐

If YES, what and by what date?
Section 12: Registration Information - as per current set-up

1 What year in program is appropriate for this program (NA or a numeric year)?
   (General rule = NA for programs and categories of students not working toward a degree level qualification.)

2 Will students register themselves?
   If YES, what priority group should they be in?

Section 13: Academic History Information - as per current set-up

1 Will instructors submit grades through self-serve?

2 Who will approve grades (Department Head, Assistant Dean, etc.)?

Section 14: T2202 Information (tax form) - as per current set-up

1 Should classes count towards T2202s?

Section 15: Awards Information

1 Will terms of reference for existing awards need to be amended?

2 If this is a new undergraduate program, will students in this program be eligible for College-specific awards?
   Yes ☐  No ☐ X

Section 16: Government of Saskatchewan Graduate Retention (Tax) Program - as per current set-up

1 Will this program qualify for the Government of Saskatchewan graduate retention (tax) program?
   To qualify the program must meet the following requirements:
   - be equivalent to at least 6 months of full-time study, and
   - result in a certificate, diploma, or undergraduate degree.
Section 17: Program Termination

1. Is this a program termination?  
   Yes [X] No [ ]
   If yes, what is the name of the program?
   Majors of Anatomy and Cell Biology [ACB], Physiology [PHSI], and Pharmacology [PCOL] in the Master of Science-Thesis [MSC-T-GP], Doctor of Philosophy (Direct) [PHD-DIRECT-GP], Doctor of Philosophy (Transfer) [PHD-TRANS-GP], Doctor of Philosophy [PHD-GP] programs

2. What is the effective date of this termination?  
   202005 [May 2020]

3. Will there be any courses closed as a result of this termination?  
   Yes [X] No [ ]
   If yes, what courses?
   Will be closed through the moribund process

4. Are there currently any students enrolled in the program?  
   Yes [X] No [ ]
   If yes, will they be able to complete the program?
   Students will be allowed to complete their current program or move to the new program

5. If not, what alternate arrangements are being made for these students?

6. When do you expect the last student to complete this program?  
   2025 - students have 6 years to complete

7. Is there mobility associated with this program termination?  
   Yes [X] No [ ]
   If yes, please select one of the following mobility activity types.
   - Dual Degree Program
   - Joint Degree Program
   - Internship Abroad Program
   - Term Abroad Program
   - Taught Abroad Course
   - Student Exchange Program

   Partnership agreements, coordinated by the International Office, are signed for these types of mobility activities. Has the International Office been informed of this program termination?  
   Yes [X] No [ ]
Section 18: Proposed Tuition and Student Fees Information - as per current set-up

1 How will tuition be assessed?

   Standard Undergraduate per credit [ ]
   Standard Graduate per credit [ ]
   Standard Graduate per term [ ]
   Non standard per credit* [ ]
   Non standard per term* [ ]
   Other * [ ]
   Program Based* [ ]

* See attached documents for further details.

2 If fees are per credit, do they conform to existing categories for per credit tuition? If YES, what category or rate?

3 If program based tuition, how will it be assessed? By credit unit? By term? Elsehow?

4 Does proponent's proposal contain detailed information regarding requested tuition?
   Yes [ ] No [ ]
   If NO, please describe.

5 What is IPA's recommendation regarding tuition assessment? When is it expected to receive approval?

6 IPA Additional comments?

7 Will students outside the program be allowed to take the classes?

8 If YES, what should they be assessed? (This is especially important for program based.)

9 Do standard student fee assessment criteria apply (full-time, part-time, on-campus versus off-campus)?

10 Do standard cancellation fee rules apply?

11 Are there any additional fees (e.g. materials, excursion)? If yes, see NOTE below.

12 Are you moving from one tuition code (TC) to another tuition code?
   Yes [ ] No [ ]
   If YES, from which tuition code to which tuition code?

13 Are international students admissible to the program? If yes, will they pay the international tuition differential?

NOTE: Please remember to submit a completed "Application for New Fee or Fee Change Form" for every new course with additional fees.
Section 19: TLSE - Information Dissemination (internal for TLSE use only)

1. Has TLSE, Marketing and Student Recruitment, been informed about this new / revised program?  Yes  No
2. Has TLSE, Admissions, been informed about this new / revised program?  Yes  No
3. Has TLSE, Student Finance and Awards, been informed about this new / revised program?  Yes  No
4. Has CGPS been informed about this new / revised program?  Yes  No
5. Has TLSE, Transfer Credit, been informed about any new / revised courses?  Yes  No
6. Has ICT-Data Services been informed about this new or revised degree / program / major / minor / concentration?  Yes  No
7. Has the Library been informed about this new / revised program?  Yes  No
8. Has ISA been informed of the CIP code for new degree / program / major?  Yes  No
9. Has Room Scheduling/Scheduling Hub/Senior Coordinator of Scheduling been informed of unique space requirements for the new courses and/or informed of program, course, college, and department changes?  Yes  No
10. Has the Convocation Coordinator been notified of a new degree?  Yes  No
11. What is the highest level of financial approval required for this submission? Check all that apply.
   a. None - as it has no financial implications
      OR
   b. Fee Review Committee
   c. Institutional Planning and Assessment (IPA)
   d. Provost's Committee on Integrated Planning (PCIP)
   e. Board of Governors
   f. Other

SIGNED

Date: December 9, 2019
Registrar (Russell Isinger):
College / Department Representative(s): Martha Smith
IPA Representative(s):