Veterinary Medical Sciences Graduate Program

Policies and Procedures—Approved Faculty Council November 20, 2020

The <u>Veterinary Medical Sciences (VMS) Graduate Program</u> is sponsored by the University of Calgary <u>Faculty of Veterinary Medicine</u> (UCVM), under the policies of the <u>Faculty of Graduate</u> <u>Studies</u> (FGS). Within UCVM, the Office of Graduate Education administers the daily functions of the VMS graduate program. The VMS program currently offers full-time studies for thesis-based Master's and doctoral degrees.

1.0 Administration

1.1 Office of Graduate Education (UCVM)

Associate Dean, Graduate Education and Internationalization

Reports to the Dean, Faculty of Veterinary Medicine Member, Leadership Council (UCVM) Member, Executive Leadership Council (UCVM) Responsible for developing and administering VMS policies and procedures jthundat@ucalgary.ca

VMS Program Director

Reports to the Dean, Faculty of Graduate Studies Chair, Graduate Education Committee (UCVM) Member, Faculty of Graduate Studies Council Responsible for implementing FGS and VMS policies Student and supervisor relations <u>jthundat@ucalgary.ca</u>

Graduate Program Administrator

Reports to the VMS Program Director Responsible for admissions, scholarships, monitoring compliance, etc. Primary liaison with Faculty of Graduate Studies administration vmgrad@ucalgary.ca

Contact Office of Gr

Office of Graduate Education Faculty of Veterinary Medicine, TRW 2D12 3280 Hospital Drive NW, Calgary, Alberta T2N 4Z6 44 (phone) (403) 210-8764 <u>vmgrad@ucalgary.ca</u> <u>http://vet.ucalgary.ca/</u>

1.2 Graduate Education Committee

The <u>Graduate Education Committee</u> (GEC) is chaired by the Associate Dean, Graduate Education and Internationalization and includes representatives from each UCVM Department, a representative of early career faculty and a VMS graduate student representative (nominated by the VMS graduate student association [VMSGSA]). The Chair reports activities of GEC to UCVM Leadership and Faculty Councils. The GEC provides advice and recommendations to the Associate Dean, Graduate Education on the policies and operations of the VMS Graduate Program. The GEC also adjudicates VMS admissions and various scholarship competitions.

2.0 POLICIES AND PROCEDURES

2.1 ADMISSION

Application for Admission to the VMS Graduate Program is made through, and granted by, the <u>Faculty of Graduate Studies</u>. As all graduate programs have limited enrollment capacities, meeting the minimum requirements does not guarantee admission into the specific program. Once complete, admission applications are evaluated by the UCVM Graduate Education Committee and students enter their program at the start of one of four months (January, May, July, and September). Full information on graduate admission requirements is available in the <u>Graduate Calendar</u>. Briefly, admission to the VMS program requires:

(a) A Baccalaureate degree (or its equivalent, or a BVSc or DVM degree) with coursework appropriate for VMS graduate training from a recognized institution with a minimum admission grade point average of 3.0 on a 4.0 grade point scale or equivalent, for the last 2 years (60 credit hours) of undergraduate study;

(b) Proficiency in the English language. Applicants whose primary language is not English are required to provide proof of proficiency in English, with a minimum TOEFL score of 97 (online test) or 580 (written test), or a minimum IELTS score of 7.0, or a MELAB score of 83;

(c) Endorsement of the Program Director, which is granted based on the evaluation of the admissions file by the UCVM Graduate Education Committee; and

(d) The VMS Funding Offer letter from a supervisor outlining the commitment to the training of the student, as well as the commitment to fund the student (in accordance with the VMS Funding Policy).

2.2 REGISTRATION

2.2.1 University of Calgary

All graduate students admitted to the Faculty of Graduate Studies must register, through the MyUofC portal, when they begin their studies at the University of Calgary. All graduate students must maintain continuous registration (even if not taking courses) and pay appropriate fees until their degree is completed.

Failure of a student to register results in automatic withdrawal. Continuing students register on the anniversary of their first registration. <u>Please note:</u> new students arriving after the beginning of the registration term are still responsible for registering and paying all associated fees on time. <u>Tuition and fee schedules</u> are posted by the Faculty of Graduate Studies.

2.2.2 Exchange and Visiting Students

<u>Students visiting the University of Calgary</u> are required to register to ensure their access to, and safety in, the laboratory, field and library.

2.2.3 Program Time Limits

The University of Calgary's expected completion time for full time study towards an MSc is 2 years, with a maximum time of 4 years. Graduate students in full-time PhD programs are expected to complete in 4 years, with a maximum interval of 6 years. If a student needs longer than the program time limits set out as above, an extension to program may be granted by the Faculty of Graduate Studies, on the basis of a recommendation from the VMS Graduate Program Director that specifies the grounds for the extension and provides a detailed schedule for the completion of the program. Forms are available from the VMS Graduate Program Administrator. If an extension is not approved, a student may be required to withdraw for reaching maximum time in program.

3.0 Graduate Student Stipends

3.1 Graduate Student Stipends

The UCVM- and FGS-approved VMS Graduate Student Funding Policy is fully described in this online document

Stipends are guaranteed for 2 years for MSc and 4 years for PhD students in good standing. Thereafter, students and supervisors may negotiate stipend amount and duration. This negotiation shall take place no later than 18 months after initial registration for MSc students for MSc students and 42 months for PhD students. The Office of Graduate Education will be notified of changes in stipend support.

4.0 Graduate Student Supervision

4.1 Supervisors

Graduate Supervisors are appointed by the VMS Program Director and approved by the Faculty of Graduate Studies. Board-appointed faculty who have supervisory status at the University of Calgary in another graduate program and wish to supervise students in the VMS Graduate Program must still obtain approval by the VMS Graduate Program Director. Supervisors who have graduated a Master's student or supervised a studentthrough doctoral candidacy will be given full supervisory status; those who have not will be granted conditional supervisory status and assigned a co-supervisor as a mentor (see below). As of July 2015, the <u>expectations and responsibilities</u> of supervisors are defined by FGS.

4.2 Student-Supervisor Checklist

No later than 2 months after first registration, VMS students and supervisors are required by FGS to meet and co-sign a <u>student-supervisor checklist</u> that defines the principal expectations and responsibilities of the graduate program. *Signatures attest that both student and supervisor have read, understood, and discussed University of Calgary policies on intellectual property, professional development, ethics, academic and non-academic misconduct, etc.* This checklist is submitted to the VMS Program Administrator as part of the graduate student's record. Student and supervisors should be clear on their respective duties, roles and the expectations that are conducive for developing and maintaining a productive and successful training environment. Best practices guidelines for <u>graduate students and supervisors</u> are provided by FGS.

4.3 Appointment of Supervisory Committee

As the supervisory committee is charged with approving coursework and mentoring the student during the initial drafts of their research proposal, VMS students and supervisors are required to form a committee and meet as a supervisory committee within 3 months of first registration and at least annually thereafter.

Supervisory committee members are chosen by the supervisor in consultation with the student. Whereas supervisory committee members are typically chosen for their scientific expertise and potential as scientific collaborators, choosing members with supervisory experience with less scientific familiarity can also offer valuable and often more objective feedback on the project and progress of the student. The *Appointment of Supervisory Committee form* must be signed by all committee members. The composition of the supervisory committee can be changed depending on the needs of both students and committee members (requiring a revised Appointment of Supervisory Committee form).

In addition to the supervisor, and co-supervisor if needed, VMS Master's students require two additional supervisory committee members, whereas VMS doctoral students require three additional members.

<u>Supervisory Committee members</u> may be named outside the faculty and graduate program as can those without a Board appointment at the University of Calgary, including postdoctoral fellows. While it is possible to request members additional to those required, adding to the membership of the supervisory committee can make it difficult to schedule committee meetings that can lead to delays in student progress.

4.4 Co-supervisors

4.4.1 FGS and VMS recognize that graduate co-supervision can be beneficial to graduate students, supervisors and the graduate program.

4.4.2 Faculty and students should recognize that the responsibilities of co-investigators and coauthors are fundamentally different from the responsibilities of graduate co-supervisor.

(a) At the University of Calgary, co-supervision is required by the Faculty of Graduate Studies (FGS Calendar I.2.1):

(i) when the supervisor has provisional supervisory status;

(ii) when the supervisor is not a Continuing Board appointee at UofC, is a professor emeritus, or is an adjunct or clinical appointee [Supervision Policy 4.5]).

In these circumstances, the co-supervisor (an experienced graduate supervisor) mentors the supervisor to ensure the student effectively navigates their journey in the graduate program.

(b) When not required by the Faculty of Graduate Studies, a co-supervisor may be appointed by the Graduate Program Director (FGS Calendar J.2.2) "when recommended by the Supervisor and with the agreement of the student." In this role, the co-supervisor advises the student in union with the supervisor to provide supplementary guidance, instruction and research stimulation on a regular or extensive basis. A co-supervisor is required to sign "all relevant documentation" (FGS Calendar J.2.4), signifying that the supervisor and co-supervisor share equal responsibility for all aspects of supervision.

(4.4.3) A co-supervisor must meet all the requirements of supervisor at the University of Calgary, including a mandatory FGS course in supervision (Section 4.9 of FGS Supervisory Policy). Delays in co-supervisor compliance can delay the approval of the supervisory committee, which can delay the student from meeting their program requirements.

(4.4.4) The process of adding, deleting, or changing a co-supervisor is the same as changing the membership of the supervisory committee: a revised FGS Appointment of Supervisory Committee form is generated by the Graduate Program Administrator and must be approved by the supervisor, student and Program Director.

(4.4.5) Co-supervisors are ineligible to vote in VMS admission to candidacy examinations

(4.4.6) Postdoctoral Scholars are ineligible to serve as a co-supervisor (FGS Calendar J.2.3).

(4.4.7) The Graduate Program Director of Veterinary Medical Sciences will consider recommendations for appointment of co-supervision when the co-supervisor commits to meeting "on a regular or extensive basis" with both the supervisor and student, i.e., for the majority of regular meetings between the student and supervisor. The Program Director will consider appointing a co-supervisor upon reviewing a supervisory plan submitted and signed by the supervisor, co-supervisor, and student. Nominal co-supervisors unable to meet regularly with both the supervisor and student are ineligible for appointment. Should a co-supervisor be unable to meet this commitment, the supervisory committee will be changed.

4.5 Supervisory Meetings

Supervisory committee meetings are required at least once a year. VMS Graduate Supervisors are responsible for submitting a <u>Report of Supervisory Committee Meeting form</u> and committee meeting minutes for each meeting. Reports should be signed and submitted to the Graduate Program Director within a reasonable time (normally 1 week) following the committee meeting. *Students will be considered in good standing with the timely submission of the Report of Supervisory Committee Meeting form and supervisory committee meeting minutes*. Attendance at supervisory committee meetings is exceedingly important, and if necessary committee members can attend by remote communications (the Office of Graduate Education can assist as needed).

Regardless of circumstances, including sabbatical leave, all supervisory committee members are expected to be available and attend oral examinations in person.

5.0 Graduate Student Evaluation

5.1 Coursework

Graduate Student performance is evaluated by grades in coursework, including both VMSrequired coursework (<u>VETM601 and VET605 or VETM610</u>-see below) and elective coursework. VMS students are required one additional (3 credit) graduate-level elective course for Master's degrees and two electives for doctoral degrees.

Elective courses are chosen by students with the approval of their supervisory committee. Should a numbered course in the <u>University Calendar</u> be unavailable to meet their training needs, students may fulfill course requirements at another university (student exchange) or with a directed study course (VETM690.XX).

VETM 601 Professional Skills in Health Science Research VETM 605 Biostatistical Methods VETM 610 (MDCH 610) Biostatistics I: Essentials of Biostatistics

Students must receive satisfactory passing grades (>C+) in graduate coursework to remain in good standing. <u>Grading rubrics for graduate courses</u> are given in the Graduate Calendar. Students taking coursework at other institutions are governed by the rules and rubrics of the host institution. Online graduate-level credit courses with a clear evaluation component may be suitable as elective courses with the approval of the supervisory committee, the Program Director, and FGS.

5.2 Academic Progress

Once coursework is complete, students engaged in work on their thesis must continue to make satisfactory <u>academic progress</u>. Evidence of academic progress is monitored through the submission of an online annual progress report to FGS, which is submitted every May. In VMS, academic progress is also monitored by review of supervisory committee minutes by the Program Director.

5.3 Research Proposal

Master's students must submit for supervisory committee approval, a research proposal 1 year after first registration.

Doctoral students must submit a research proposal as part of the Admission to Candidacy procedures (see below).

5.4 Public Seminar (as of June 2014 with Faculty of Graduate Studies approval, replaces course requirement VETM600)

All VMS students must present a public seminar of their thesis work. MSc students are required to present one seminar prior to scheduling the thesis defense. PhD students are required to present one public seminar prior to their Admission to Candidacy Field of Study Examination, and another public seminar prior to scheduling their thesis defense.

The purpose of the public seminar is two-fold: (a) give the student formal public speaking experience to aid them in preparing for their oral field-of-study examination; and (b) inform the university community of the research activities in Veterinary Medical Sciences. Although not graded, the public seminar is a program requirement that marks the time of progression of a student through their program. To schedule the public seminar, the Supervisor will contact the Graduate Program Administrator no less than 2 weeks in advance of the seminar to arrange advertising to the Faculty of Veterinary Medicine. The following are the specifications of a public seminar in VMS:

(a) The exact time, place, and audience can vary,

(b) The seminar must be presented at the University of Calgary,

(c) The seminar must be on the student's thesis work,

(d) The seminar must be advertised faculty-wide at UCVM,

(e) Although the exact audience may vary, e.g., entire Faculty, Department, Research

Group, Institute, etc., presentations at lab meetings or journal clubs would be insufficient,

(f) While the duration of the seminar may vary, it is expected to last at least 30

minutes, with the opportunity for audience questions thereafter.

5.5 Admission to Candidacy (Doctoral students only)

The UCVM- and FGS-approved VMS candidacy policies are described in the <u>VMS Admission</u> to <u>Candidacy</u> policy document.

5.6 Thesis and Thesis Examinations

5.6.1 Thesis

The thesis is an essential tool for disseminating research findings, is the culmination of a student's graduate program and is the primary subject of examination. Hence, the quality and integrity of the thesis is paramount and ultimately, the thesis must be the student's own work. Students and supervisors are responsible to consult <u>FGS guidelines</u> for thesis quality, ethics, intellectual property, form and style, and copy editing are given by FGS. A copy of the final thesis must be received by all examiners no later than 3 weeks prior to the thesis defense.

5.6.2 Thesis formats

There are strict formatting requirements of theses submitted to the University of Calgary. As per FGS policy, <u>two formats of thesis</u> are available to students: traditional thesis and manuscript-based thesis. With permission from their supervisor(s), students may choose to compose their theses in the manuscript-based thesis format where the research may be presented as a collection of papers of which the student is the primary author. These papers must have a cohesive, unitary character making them a report of a single program of research. Although manuscript-based theses often contain published articles, or articles that have been accepted for publication, inclusion of these papers does not guarantee that the thesis will pass the thesis examination.

5.6.3 Scheduling of thesis examination

Effective September 1, 2014, in addition to the Faculty of Graduate Studies thesis examination requirements, Veterinary Medical Sciences program requires that all members of the Supervisory Committee to have reviewed the student's research, including a relevant written sample of the materials related to the thesis, before an examination can be scheduled. Upon confirmation of completion of all degree requirements, the Graduate Program Administrator: (a) secures a Neutral Chair, (b) assigns a room and time in consultation with FGS, and (c) generates the *Notice of Thesis Oral Examination form*, which must be completed by the student and supervisors. The Notice of Thesis Oral Examination form must be completed and received by the Graduate Program Director *5 weeks prior to the time of the exam*, so it may be received in the Faculty of Graduate Studies office no less than 4 weeks prior to examination.

5.6.4 Composition of thesis examination committee

In VMS, the thesis examination committee includes the supervisory committee where the supervisor and co-supervisor (if applicable) are full voting members. External examiners are required for both MSc and PhD exams: one internal examiner for MSc (the internal examiner is internal to the University of Calgary, but must be external to VMS graduate program), one internal and one external examiner for PhD theses. For PhD thesis exams, the internal examiner is internal to the University of Calgary, but external to VMS graduate program, whereas the external examiner is external to the University of Calgary.

External examiners must be qualified experts on the thesis topic, must not have any <u>conflict</u> <u>of interest</u> with the student or supervisor, and must be approved by the FGS. In general, external examiners must have supervised and examined students of at least the level they are asked to examine. A neutral chair is appointed by the Graduate Program Director to chair the thesis defense examination.

5.6.5 Thesis examinations

Thesis oral examinations are examinations of the Faculty of Graduate Studies. All <u>rules and</u> <u>regulations pertaining to the thesis defense</u> are published in the Graduate Calendar, including scheduling, format, composition of the examination committee, conflicts of interest, etc. In the VMS Graduate Program, the final thesis defense for MSc and PhD degrees is immediately preceded with a public seminar of the thesis work, followed by an open oral examination. The exam committee will refrain from asking questions at the public seminar. This will be followed by a brief break (~10 minutes) where there will be no interaction between the candidate and exam committee.

Before the oral examination, each examiner is required to prepare an assessment of the thesis on the official *Examiner's Report on Thesis* form to be submitted to the Neutral Chair at the start of the thesis examination. The oral examination may not begin until all examiners have submitted the Examiner's Report on Thesis form to the Neutral Chair. These are *confidential* initial assessments that are not to be made available to the student or other examiners prior to the final recommendation of the examination committee. After the examination, the Neutral Chair must submit all exam reports to the Graduate Program Director, who ensures that they are forwarded to the Faculty of Graduate Studies.

The oral examination is a formal examination, not an informal discussion with the candidate. The oral examination should not exceed 2 hours. This does not include deliberation time of the committee. No one other than an examiner (as identified on the *Notice of Thesis Oral Examination* form) is allowed to question the candidate. All examiners must be given an opportunity to question the candidate early in the examination, e.g., by rounds of questioning. Examiners' editorial comments on the thesis should not be discussed at the oral examination. It is recommended that each examiner hand the student a list of any such comments for post-examination final thesis revisions immediately after the exam is complete.

Questions to the candidate should be relevant to the subject matter of the thesis and should be clearly and succinctly phrased in order to minimize doubt in the candidate's mind as to what is being asked. The student should be given reasonable time to answer. If the student has understood the question but cannot answer, the examiner should pass to another question and not attempt to extract an answer by prolonged interrogation. The Neutral Chair should guard against any tendency of examiners to interact with each other, instead of concentrating on the examination of the candidate.

The examiners' deliberations are private and confidential. Only the Neutral Chair, the examining committee, the Program Director and the Dean of Graduate Studies or the Dean's Representative, may be present for deliberations.

6.0 Transferring between MSc and PhD programs

6.1 Distinguishing Features of MSc and PhD theses

There is often confusion about what distinguishes Master's and Doctoral theses, which are defined by FGS: A **Master's Thesis** should demonstrate that the candidate is acquainted with the published literature in the subject of the thesis, that appropriate research methods have been used and that appropriate levels of critical analysis have been applied. The research embodied in the Master's thesis should make some original contribution to knowledge in the field. A **Doctoral Thesis** must embody original work conducted while in program and must constitute a significant contribution to knowledge. It should contain evidence of critical understanding of the relevant literature. The material embodied in the thesis should merit publication.

6.2 Transfer from MSc to PhD program

Students excelling in Master's research may, with the approval of their supervisory committee, choose to transfer to a doctoral program within the first 18 months after initial registration. Minutes of the supervisory committee meeting in which the decision was made, a written recommendation signed by all committee members, an approved Master's level research proposal and the FGS Change of Program or Status form, need to be submitted by the supervisor to the Graduate Program Director. A revised FGS *Appointment of Supervisory Committee* form generated by the Graduate Program Administrator is needed if an additional committee member is required for the doctoral supervisory committee. Student transferring from the MSc to the PhD program must fulfill the minimum requirement of <u>two</u> elective graduate level courses prior to proceeding with Admission to Candidacy. The requirement for a written research proposal, revised as necessary for a PhD project, must be met for Admission to Candidacy.

6.3 Transfer from PhD to MSc program

Students in a PhD program, even after successful completion of the <u>admission to candidacy</u> <u>process</u> may elect to transfer into an MSc program. This should be discussed at a meeting of the supervisory committee and minutes of this meeting, including a written recommendation signed by all committee members and the FGS Change of Program or Status form, should be submitted to the Graduate Program Director.

7.0 International Students

7.1 Studying in Canada

International students have special requirements and challenges before and after they commence their graduate studies. <u>International Student Services</u> at the University of Calgary provides a variety of support services to prospective and currently enrolled graduate students. Prior to starting their graduate programs, they must obtain the appropriate immigration permits to study in Canada. Depending on jurisdiction, a study permit may take many months to obtain. And, if incorrect, the student may be inadmissible to Canada or may need to significantly delay the start of their program. It is imperative to begin early and check often with immigration officials in their home country.

7.2 English as a second language

It is difficult to overestimate the challenges of travelling to, and living in, a new country. This is invariably compounded by complex coursework taught in a language that may be incompletely mastered. Although many international students have taken coursework in English, few fellow students will speak their native language in their graduate courses, which makes it very difficult and inefficient to learn new and sophisticated ideas. And, as written communication is the essence of any thesis-based graduate program, it is imperative that student come prepared, practice often, and seek assistance as soon as possible.

The University of Calgary has several programs to improve language skills. If considering graduate studies and living in Calgary, the <u>English Language Program</u> provides training in English language skills to prepare you to meet the FGS requirements of English proficiency. If you have recently arrived from abroad and are enrolled, the <u>Student Success Centre</u> has services for International Students in need of counselling, and for learning and writing skills.

8.0 EMPLOYMENT WHILE REGISTERED IN A GRADUATE PROGRAM

8.1 Graduate Assistant (Teaching, Non-teaching, or Research)

Graduate students may hold Graduate Assistantships Teaching (Teaching—GAT), (Non-teaching), or (Research). GATs provide assistance in coursework teaching. All Graduate Assistant stipends are governed by an agreement between the Governors of the University of Calgary and the Graduate Students Association and VMS graduate student funding policy.

8.1 Off-campus employment

While VMS graduate students can seek off-campus employment, such employment must not diminish their commitment to their full-time program. Canadian citizens and permanent residents are not restricted in the hours of off-campus employment; however, as of June 2014, Immigration Canada requires that those in Canada on a <u>study permit</u> are restricted to a maximum of 20 hours per week in off campus employment. Holders of Faculty of Graduate Studies or UCVM awards must not hold paid employment that entails 450 or more hours per year (~8.5 hours per week) or accept full-time employment while their award is active. Awards may be cancelled without notice if the terms and conditions under which they are granted are not met. Any payment made during a period in which they were not eligible to hold, the award must be reimbursed.

9.0 Student Services

Graduate Students can access a large number of <u>student services</u> at the University of Calgary, including Academic, Advocacy, Campus Life, and Wellness services.

9.1 Graduate Student Association (GSA)

The <u>GSA</u> sponsors the health and dental insurance plan for graduate students, awards and bursaries, sponsors workshops, and represents graduate students at Faculty of Graduate Studies Council, and negotiates the GAT and GAR agreements with the Board of Governors.

10.0 Certifications

Depending on the needs of the research program, all students must be appropriately certified to work whether in the laboratory, field, or clinic, and whether with animals or humans. Supervisors are responsible for complying with Health & Safety regulations, animal care, and ethics for their research programs, including those in which their graduate students participate.

10.1 Trainees should be prepared to take the *WHMIS and Radiation Safety* courses, and animal handling courses as needed. *Successful completion of these requirements will be noted on the Annual Progress Report*. Relevant animal use, ethics, and biohazard certifications must be in place *prior* to students working on their projects where these are required and in accordance with the <u>Faculty of Graduate Studies Thesis Guidelines</u>.

History Approved Faculty Council Committee-November 20, 2020 (Meeting # 116) Approved by the Leadership Council- April 21, 2020 (Meeting # 284) Revised and approved by the Graduate Education Committee- April 15, 2020 Approved Faculty Council Committee 8 June 2016