



**THE OHIO STATE UNIVERSITY**

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**College of Veterinary Medicine  
Comparative and Veterinary Medicine  
Graduate Program Handbook**

*2017-2018*

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## Annotation of Changes from 2016 CVM Handbook

1. Addition of new curricular requirement  
Students who matriculate in Autumn Semester 2017 or later, will have a bioethics curricular requirement. This policy is outlined in the following sections:  
MS Students – Chapter 4, Section C, 5c  
PhD Students – Chapter 5, Section C, 5c
2. Removal of the PhD Residency requirement in concordance with new Graduate School policies; Chapter 5, Section C6
3. Addition of suggested courses to meet bioethics requirement  
Appendix B
4. Clarification of GRE Requirement and Waiver; addition of Reference Form that must be included with GRE Waiver requests.  
Appendix G
5. Clarification of publication requirements for MS and PhD students  
MS Students – Chapter 4, Section D, 1d  
PhD Students – Chapter 5, Section E, 3

# Chapter 1. General Information

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## A. Introduction

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The College of Veterinary Medicine (CVM) Graduate Program is uniquely positioned to prepare professional and graduate students for careers in basic, translational, clinical, and applied medical research. In the 1960s the concept of “one medicine” was advanced to combat zoonotic diseases affecting animals and humans. This vision has progressed to become “one health” in recognition of the broader implications of the close interactions, interconnectivity, and commonality between humans and animals.

## B. Graduate Program Handbook

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This handbook is designed to be an informative and concise resource for students and faculty of the Graduate Program of the College of Veterinary Medicine. The handbook describes policies and procedures for administration of the program and is in compliance with the policies established by the Graduate School of The Ohio State University. The Ohio State University Graduate School policies regarding admissions are published in bulletins available from the Graduate and Professional Admissions Office, Student Services Center 281 W. Lane Avenue, Columbus, Ohio 43210 and on-line at <http://gpadmissions.osu.edu>. The Graduate School Handbook (abbreviated GSH herein) is available from the Graduate School, 250 University Hall, 230 North Oval Mall, Columbus, OH 43210. The website for the Graduate School contains additional information as well as electronic copies of the GSH and other important forms at: <http://www.gradsch.osu.edu/>. Graduate students and their faculty advisors are responsible for being aware of all current policies, rules, and procedures.

**Note:** Students participating in residency programs should also refer to the residency handbooks for specific questions about residencies and non-academic issues and activities related to their training.

## C. Graduate Program

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The graduate studies in the College of Veterinary Medicine are divided into five paths.

### 1. PhD and MS program

Research leading to either the PhD and/or MS is supported by graduate faculty of the CVM. Competitive applicants will have completed a BS, MS, or DVM degree. Applications are submitted directly to the university Graduate and Professional Admissions office. Application requirements and procedures are

described in Chapter 2, and MS/PhD program requirements are described in Chapters 4, 5, and Appendix C.

## **2. Combined Residency/MS Program**

This course of study is designed for DVM's who are selected for residency training programs in the Departments of Veterinary Clinical Sciences (Clinical Residency Program), and Veterinary Preventive Medicine (Laboratory Animal Medicine, Wildlife and Ecosystem Health ). Applications for residency programs are submitted to the residency program coordinator of the appropriate department, and the name of the applicant accepted into the residency program will be forwarded to the College Graduate Program Coordinator for coordination of the separate graduate school application. Requirements for the MS can be found in Chapter 4. With support of the student's graduate advisory committee, individuals have the option of continuing their research beyond the MS to a PhD program following completion of the residency portion of the program.

## **3. Combined Residency/PhD Program**

This course of study is designed for DVMs who are selected for residency training in the Veterinary Clinical Pathology and Veterinary Anatomic Pathology programs through the Department of Veterinary Biosciences. Applications for residency programs are submitted to the residency program coordinator of the appropriate department, and the name of the applicant accepted into the residency program will be forwarded to the College Graduate Program Coordinator for coordination of the separate graduate school application. Requirements for the PhD can be found in Chapter 5.

## **4. Combined DVM/MS Program**

This course of study is designed for individuals enrolled in the DVM professional degree program who are interested in simultaneously pursuing research leading to the MS degree .Applications are submitted to the College Graduate Program Coordinator. The requirements of the MS are described in Chapter 6. Students, with the help of their research advisers, must submit a course plan to the CFGS when applying. Six (6) letter-graded semester course credits may be counted towards both the DVM and MS degrees, provided that the respective courses are designated as a G(Graduate) and V(Veterinary) course. Students should be aware that completion of the MS program may require extra time (1 to 2 semesters) after completion of the DVM degree. With support of the student's graduate advisory committee, individuals have the option of continuing their research in order to defend a PhD dissertation following completion of the DVM.

## **5. Master of Public Health**

Although not a part of the CVM graduate program, the Master of Public Health (MPH) program with the specialization in Veterinary Public Health is jointly administered by the Department of Veterinary Preventive Medicine and the College of Public Health. Applications are coordinated through the School of Public Health. More information is available at <http://www.cph.osu.edu/prospective-students/how-to-apply> and in Appendix E.

## **D. Levels of authority of the Graduate School, CVM Council for Graduate Studies (CFGS), and the Advisor**

### **1. Graduate School**

All graduate programs at The Ohio State University are sanctioned and abide by the policies of The Ohio State University Graduate School. The Graduate School publishes the Graduate School Handbook referred to in *Section B* above. This publication contains the policies, rules and procedures that apply to all graduate students enrolled at the University.

### **2. Council for Graduate Studies**

Each graduate program establishes a graduate studies committee referred to in this document as the Council for Graduate Studies (CFGS), to ensure that the policies of the Graduate School are administered appropriately and to provide specific policies to govern the CVM Graduate Program. As stated in the Graduate School Handbook (Section 14), the Graduate School sets the minimum standards within which the various graduate studies committees establish their own policies, rules and procedures. As defined in its charter (Patterns of Administration, CVM) the CFGS is authorized to define additional rules, etc. providing they do not conflict with those of the Graduate School.

### **3. Graduate Faculty Advisor**

Any Graduate Faculty member or group of Graduate Faculty serving as advisor(s) for a graduate student may specify additional requirements (including specific courses or course areas) so long as they are in compliance with Graduate School and CFGS rules. Any such additional requirements must be in writing and the graduate student must be made aware of these requirements before beginning their course of study.

### **4. Areas of Specialization**

The CFGS within the CVM may identify an official area or areas of specialization within the graduate program following the guidelines of the Graduate School for establishment of a Graduate Specialization and upon approval of the Graduate School. With the approval of the advisor and the CFGS, a student may select an approved area of specialization. At the request of the student and the CFGS, specializations will be posted on the Ohio State permanent record in addition to the name of the graduate degree program. Example: Comparative Medicine with specialization in Epidemiology.

## **E. College of Veterinary Medicine Graduate Program**

1. The Graduate Program reflects the broad scope of disciplines as they apply to Veterinary Medicine and Comparative Medicine, which includes teaching and/or research in anatomy, cellular and molecular biology, microbiology and immunology, anatomic and clinical pathology, pharmacology and physiology, epidemiology, veterinary public health, food safety, population medicine and herd health, anesthesiology, cardiology, dermatology, radiology, equine medicine, food and fiber animal medicine, equine surgery, small animal surgery, neurology and neurosurgery, oncology and hematology, ophthalmology, small animal medicine, camelid medicine and surgery, nutrition, equine ambulatory, emergency & critical care, and theriogenology. Graduate training in these areas of study is available under the mentorship of the Graduate Faculty of the College.
2. The Graduate Program offers areas of study leading to the MS and PhD degrees with flexibility that allows students and faculty to customize academic programs with careful guidance toward attainment of career goals of the student. DVM graduate students may pursue graduate studies in combination with training in preparation for certification by American Veterinary Medical Association recognized specialty boards.
3. The College provides scientific and academic expertise, facilities in which to perform original research, and opportunities for development of teaching, writing and critical thinking and analytical skills for students accepted into the Graduate Program. In return, the College expects students to conduct themselves in a scholarly manner abiding by the academic principles of scientific rigor and intellectual honesty. Students are therefore expected to strive for academic excellence and to participate fully in the College teaching, research, and service missions.

## **F. Graduate Faculty**

1. The University has a separate Graduate Faculty that is a subset of the general faculty. Newly hired faculty are not automatically members of the Graduate Faculty but are appointed to that status. Membership in the Graduate Faculty is required for any faculty who will serve on master's and doctoral examining committees, or act as advisor to master's and doctoral students. There are two levels of Graduate Faculty membership approved by the University: Category M (for master's) and Category P (for doctoral), designating the level of graduate student advising for which a faculty member has authorization. Regular (appointments at fifty percent time or more) tenure-track faculty and research faculty, with the rank of assistant professor or above, are eligible for appointments as Category M and P Graduate Faculty. Regular clinical faculty are eligible for appointment as Category M Graduate Faculty. See the Graduate School handbook for authorized overall functions for Graduate Faculty.

## **2. Service of Non-CVM Graduate Faculty on GS Advisory Committees**

- a) Graduate Faculty status in the CVM is not necessary to serve as a co-advisor or as a member of the GS Advisory Committee for CVM graduate students.
- b) If a faculty member from outside the college wishes to serve as the main advisor to a CVM student, a formal request for admission to the CVM Graduate Faculty must be submitted to the CVM Council for Graduate Studies as outlined below in section 3b.
- c) If a faculty member wishes to serve on a CVM student's GS Advisory Committee and is not a member of the Graduate Faculty, they may be appointed to the committee as an additional member by approval of the CFGS and by petition to the Graduate School. Their membership on the committee does not count toward the required minimum committee members as set forth in the Graduate School Handbook. Their membership does count toward any higher standard that CVM sets for committees, as shown here:
  - i. Master's Degree Committee: The Graduate School requires 2 members, CVM requires 3. The non-Graduate Faculty member may serve as the 3<sup>rd</sup> member
  - ii. PhD Committee: The Graduate School requires 3 members, CVM requires 4. The non-Graduate Faculty member may serve as the 4<sup>th</sup> member.
  - iii. Candidacy Exam Committee: Graduate School requires 4 members, CVM requires 4 members. The non-Graduate Faculty member may serve as a 5<sup>th</sup> member

## **3. Admission of Graduate Faculty**

- a) Regular tenure-track faculty from other Ohio State departments may apply for membership to CVM Graduate Faculty. The approval of a non-CVM faculty as a member of the CVM Graduate Faculty carries no additional salary and does not imply a change in professional title. The purpose of such membership is to provide complimentary expertise in any specific discipline of the program that will strengthen and broaden the graduate program either through research or teaching substantial portions of departmental graduate level courses.
- b) An approval from the CVM Council for Graduate Studies is required before a faculty member outside the CVM can be granted Graduate Faculty status in the CVM Graduate Program. To be considered for Graduate Faculty status, the faculty member will submit the following to the CFGS:
  - i. A curriculum vita including a current record of research funding and graduate training record
  - ii. A cover letter stating the purpose of the application
  - iii. A support letter from an active CVM Graduate Faculty member outlining the plan for mentorship and collaboration
  - iv. a support letter from his/her department chair

- c) The CFGS will review the application and make a recommendation to the Graduate School. The newly appointed faculty member must accept and abide by the procedures outlined in the College Graduate Handbook.

#### **4. Category M or P**

The CFGS is responsible for processing applications for Category M or P status. The CFGS appoints Category M Graduate Faculty members and notifies the Graduate School of its actions. The CFGS submits nominations for Category P membership on the Graduate Faculty to the Policy and Standards Committee of the University Council on Research and Graduate Studies (Graduate School) and certifies by appropriate documentation that those nominated meet published university-wide guidelines. In addition, the CVM Graduate Program has established specific policies for a faculty member to be nominated as a Category P Graduate Faculty member.

#### **5. Guidelines for nominations to Category P Graduate Faculty status.**

Eligible Graduate Faculty seeking Category P status must submit appropriate materials (listed below) that document fulfillment of the Category P status to the CFGS Chairperson. The CFGS will review these materials to assure that all guidelines are met. CFGS approval of the Category P applicant will be made by majority vote of the CFGS. The CFGS chairperson will forward the appropriate documents and forms to the Graduate School for final approval of Category P status.

The eligibility and qualifications of persons considered for nomination will be reviewed according to the following guidelines. Eligible faculty approved for Category P status must document each of the qualifications listed below.

##### **a) Eligibility**

- i. Academic appointment: Professors, Associate Professors, and Assistant Professors who hold appointment as a regular tenure-track or research track-faculty member. Non-PhD Individuals holding other faculty or instructor titles may also be considered on a case by case basis.
- ii. Education: PhD (or equivalent degree) or DVM, VMD, MD, DO, DDS (or equivalent professional medical degree) with documented research training and experience. Individuals requesting P status who have a professional medical degree should also possess a graduate degree or other equivalent experience, such as training as a postdoctoral researcher, or a residency at the NIH.
- iii. The applicant should have experience as an Advisor for a MS student or a Co-Advisor for a PhD graduate student who has completed her/his degree requirements or should have served on a Doctoral Advisory Committee of a graduate student who has completed her/his degree requirements.

b) Qualifications

- i. Active Program in Research - the most readily available evidence of research productivity is publication in scholarly journals. The publication record should reflect both active (e.g., average of 2 publications per year during previous three years) and continuous productivity (e.g., scholarly publications over course of career) in the area of the research specialty.
- ii. A track record of sufficient research funding to provide support of graduate research is required. Research funding ideally should have included extramural sources that utilize peer review as evidence of professional research quality and reputation.

c) External Faculty

- i. For individuals who are not Faculty Members at The Ohio State University, but who wish to serve on master's and doctoral examination committees, the College will follow the Graduate School policies. Approval by the Graduate School is granted upon special petition by the Council for Graduate Studies, outlining the special qualifications and expected contributions of the proposed committee member.

6. The CFGS will periodically review the Graduate Faculty Status of the CVM faculty. If changes in the current status appear necessary, these recommendations will be discussed with the individual faculty member.

## Chapter 2. Admissions Procedures & Requirements

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### A. Procedures

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1. Depending on the path through which the student wishes to enter, he or she should contact either the College Graduate Program Coordinator (PhD, MS, Combined DVM/MS) or the departmental residency program coordinator (Combined residency with PhD/MS). Those students applying to the combined residency programs will have to follow separate procedures prior to completing the application to the Graduate School.

NOTE: For applicants to the residency programs, transcripts, test scores, letters of reference, curriculum vitae, and letters of intent are first submitted to the departmental residency program coordinator, or through the MATCH program at [www.virmp.org](http://www.virmp.org).

2. Applicants applying to the MPH Program Specialization in Veterinary Public Health should contact the College of Public Health for more information about using the SOPHAS system to apply. More information can be found at <http://cph.osu.edu/prospective-students/how-to-apply>.
3. In order for an application to be considered official, all applicants must submit an on-line application and pay an application fee at: <http://www.gradadmissions.osu.edu>
4. The CVM Graduate Program will abide by the minimum entrance requirements established by the Ohio State Graduate School admissions office. Refer to the Graduate School Handbook for general admission criteria of the University.
5. Official test scores and official copies of all academic transcripts should be sent to the Office of Graduate Admissions. The mailing address can be found at: <http://gpadmissions.osu.edu/help/contact-us.html>. Individuals should use the correct address depending on the type of application and type of mail.
6. Other materials including recommendation forms, recommendation letters, curriculum vita, and a "Letter of Intent" and all other required application materials may be uploaded as part of the application. The Letter of Intent should be 1-2 pages long and describe the applicant's background, current interests, and future professional goals. Letters of recommendation should be from persons capable of judging the academic abilities of the candidate and their ability to be successful in graduate school (e.g., former teachers, professors, etc.). The letters of recommendation must be on official institutional stationery of the person making the recommendation.

## B. Entrance Requirements & Procedures

1. A Bachelor's degree or higher in an area relevant to the CVM Graduate Program is required for admittance. Students who entered a DVM program after 3 years of undergraduate coursework and obtained early admission to veterinary school will be considered on a case-by-case basis. A Doctorate of Veterinary Medicine or related professional degree from a certified college or university may be required for some program specialties. Official transcripts from each college or university attended must be sent directly from these institutions.
2. A cumulative undergraduate and/or professional grade point hour ratio at or above the minimum 3.0 on a scale of 4 (A=4, B=3, C=2, D=1), and a cumulative grade point hour ratio of 3.3 on a scale of 4 for all previous graduate coursework is required. The Ohio State Admissions Office will carry out the necessary computations and conversions. Under rare circumstances, students who do not have these minimum GPA requirements may be considered if there is compelling evidence of the individual's potential for success in graduate studies that is not reflected in the GPA. In this case, admittance would entail a petition to the Graduate School and may be a conditional admit with conditions recommended by the CFGS.
3. All applicants are required to submit the results of the Graduate Record Examination (GRE) Aptitude Test to the Ohio State Graduate Admissions Office. Foreign applicants must also meet the Graduate School Admissions requirements for the Test of English as a Foreign Language (TOEFL) or similar test (<http://gpadmissions.osu.edu/intl/english-proficiency>). In some cases, GRE scores older than 5 years may be acceptable at the discretion of the CFGS if the GRE was taken in preparation for entrance to Veterinary School.  
NOTE: International veterinarians may be exempt from taking the exam. For more specific details on this policy, please see Appendix H. A petition by an intended advisor in the College of Veterinary Medicine is required. However, domestic students or international students who have taken the exam will be required to submit their GRE scores, even if they are older scores, if the exam was taken in preparation for Veterinary School.
4. Successful applicants should have a minimum GRE with a verbal score higher than the 25<sup>th</sup> percentile and a quantitative score at or greater than the 50<sup>th</sup> percentile. These requirements may be adjusted and applicants should contact the CFGS chair or Graduate Program Coordinator for updates.
5. Supporting recommendations, on special forms provided by the Ohio State Graduate Admissions Office, from three individuals familiar with the academic work of the applicant should be provided. The letters of recommendation must be accompanied by the referral forms and must be on official institutional letterhead of the person making the recommendation, or be submitted through the on-line application process to be verified as official by the Graduate Program Coordinator.

NOTE: Students applying to the combined residency and graduate programs may submit their recommendation letters through the residency match program to the respective departmental residency program coordinator.

6. **Course prerequisites:** In rare circumstances, a student may be conditionally admitted and be required to meet defined coursework requirements during the initial period of the student's course plan. The advisor or advisory committee for the student will define these course requirements upon the request of the CFGS or based on the requirements of the advisor and the requirement will be communicated to the CFGS.
7. Unless the applicant is entering a residency program, it is required that she/he has identified a faculty member who is willing to serve as his/her adviser and who can provide financial support. The CFGS recommends admission to the CVM Graduate Program based on the applicant's capabilities and the ability of the graduate faculty to meet the student's needs. A faculty member must be available and willing to provide guidance in the student's specific area of interest. To gain admission to the program, a letter stating the stipend and resource support for the student must be provided by the faculty advisor or graduate faculty responsible for the funding of a GA position and placed in the students file prior to final acceptance into the program. Electronic letters of support are also acceptable.
8. For residency programs that require admission to the CVM MS or PhD program, the residency program director or the department chair may offer positions to applicants for the residency program, although these offers are not official until the CFGS has confirmed that the applicant meets the entrance requirements for admission to the CVM graduate program.
9. Students who have been admitted into the CVM MS program may be eligible to transfer into the CVM PhD program. A new application to graduate admissions is not required. For consideration, the student must have above a 3.3 in their CVM MS program and must submit the following for review by the CFGS:
  - a) A written statement indicating goals and plans for pursuing PhD
  - b) A written statement from the students intended advisor which demonstrates a commitment to mentor the student and a source of financial support for the PhD.
  - c) Submit the Request for Transfer of Graduate Program form to the Graduate School via GradForms.

## Chapter 3. Graduate Studies Guidelines

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### A. Initial Registration

1. The student's advisor will help organize the student's program. Details on the mechanics of registration can be found in the current announcements of the Graduate School.
2. Course load: The number of credit hours attempted each semester is mutually determined by the student and advisor in consultation with the student's advisory committee. Course loads for full-time students range from 8 to 12 credit hours per semester. However, the course load is determined by the nature of the courses taken and the student's academic record and employment plans. A student may not enroll for more than 18 credit hours per semester, exclusive of audit courses, without advisor approval. For full-time graduate students as defined in this section (below), the procedure for petitioning to enroll in fewer credit hours than required is listed in the Graduate School Handbook. The following are specific requirements based on typical appointments in the CVM Graduate Program.
  - a) Students holding the titles of *Graduate Fellow* regardless of the source of funds, must register for a minimum of 12 credit hours for each semester the appointment is held.
  - b) Students holding the titles of *Graduate Associate* (Graduate Teaching Associate or Graduate Research Associate) with 50% or greater appointments must register for at least eight (8) credit hours/semester, except in the summer, when four (4) credit hours are scheduled. GAs holding a 25% appointment must register for at least four credit hours/semester except in summer session when the minimum is two.
  - c) Students in PhD programs who have completed their candidacy exams are not expected to register for more than three (3) graduate credit hours per semester. These three credit hours may be chosen by the student and their advisor. In most cases, students should register for at least one (1) credit hour of CVM 8999. Students should discuss with their advisor and petition the CFGS if they wish to register for more than three (3) hours.
  - d) International students are required to register for a minimum of eight (8) credit hours per semester except in summer session, when the minimum is four, unless they hold appointments as fellows or trainees, or unless they are post-candidacy.
  - e) Students on different HR titles may be subject to different registration requirements. Students working in a staff position while completing their degree, such as Postdoctoral Fellow, Research Associate, Resident, etc, may register for a maximum of 10 credit hours per semester. Students should contact their advisor or the Graduate Program Coordinator for advice for their individual situation.

## **B. Advisor**

1. The graduate program is oriented toward a close working relationship between the graduate student and advisor. The advisor has the responsibility of overall coordination of the course of study and research of the graduate student, advising the student in the conduct of scientific research, evaluating and promoting effective writing and oral communication, and monitoring the progress of the student. The advisor will share with the student the responsibility of planning and directing the research. Each of these plans will be subject to approval by the advisory committee. The advisor will chair all committees set up to plan, review, assess and examine the student's progress through the program.
2. It is ultimately the student's responsibility to ensure that requirements are fulfilled before examinations are scheduled, that all deadlines are met, and all required forms are delivered to the Graduate School. Failure to meet deadlines may result in deferment of the degree.
3. Change of Advisor: Although a student's interests may change during the course of the graduate experience, a change of advisor usually results in a considerable loss of time and effort and leads to delays in the graduate program. A student, or advisor, may petition the CFGS in writing at any time for a change in advisor. The CFGS will act on these requests once each semester. Information on official change of advisor status will be transmitted to the Graduate School.

## **C. Graduate Student (GS) Advisory Committee**

1. The responsibilities of the GS Advisory Committee are to provide advice regarding the overall academic and research program of the student and to assist in the evaluation of progress in both of these aspects of the graduate program.
2. Annual review of graduate school performance will be coordinated with annual review of residency training, for those who are in combined residency/graduate programs. Evaluator(s) of the residency performance need not be a member of the students' graduate advisory committee.
3. Each student must have a GS Advisory Committee consisting of the advisor, who serves as Chair of the committee, and at least two Graduate Faculty members for the Master of Science program; or the advisor and at least three Graduate Faculty members for the Doctor of Philosophy program. The Graduate School may be petitioned to allow one non-Graduate Faculty member to participate on a student's committee. The exception is the PhD Candidacy Examination Committee, which requires four Graduate Faculty members. Students may include non-Graduate Faculty, but only in excess of the required four. The student, in consultation with the advisor, should choose committee members based on their ability to provide expertise complimentary to the student's area of interest. This committee must be selected by the end of the first year in the

program. The CFGS must be notified in writing of the composition of the committee during the Graduate Student Annual Review process. Any proposed changes in the committee should be submitted in writing to the CFGS for approval.

4. Each student in good academic standing (Cumulative GPA is greater than 3.0) will be evaluated in a meeting with the GS Advisory Committee on a yearly basis. Students and their advisors and committees will participate in the online Graduate Student Annual Report and Review process that takes place each December. The completed form is returned to the CFGS, which reviews the information to assure that both the College and the student are fulfilling their responsibilities. The completed form becomes a part of the student's permanent record. Students placed on academic probation (CGPA < 3.0) are monitored and counseled by the Graduate School, the advisor, and the CFGS Chairperson, until they are either returned to good academic standing or dismissed from the program.

## **D. Academic Program**

1. Student and Advisor must plan a program of study toward an advanced degree and submit it to the GS Advisory Committee for approval. The GS Advisory Committee may be asked to assist in planning the academic program (i.e., course plan). The Academic Program should be submitted to the student's Advisory Committee at the time of the annual review. The student's course plan/schedule should be submitted to the CFGS in conjunction of the first annual review.
2. **This program should include:**
  - a) Student's goals
  - b) Course schedule
  - c) Tentative teaching responsibilities, if any
  - d) Clinical responsibilities, if any
  - e) Signatures of each of the GS Advisory Committee members
3. **Transfer of credits and/or waiver of requirements:**
  - a) Waiver for specific course or program requirements on the basis of work accomplished prior to entry into the CVM Graduate program must be approved by the CFGS.
  - b) Entry into the doctoral degree program with a prior MS from another institution may count as up to 30 credit hours toward the 80 hour requirement, but will not automatically eliminate any other requirements.

- i. The CFGS and the Graduate School should be notified that 30 credit hours for an MS or other transfer credits are being claimed. The student must initiate appropriate transfer credit forms, which are available through the GradForms. These forms are to be reviewed and signed by the CFGS Chair upon examination of official transcripts provided in the students file. Credits should be transferred at the time the student is admitted but no later than the end of the second semester of enrollment in the Graduate School. The Graduate School will make final approvals of transfer credits. See also Graduate School Handbook, section 4.2
- ii. Transfer of more than 30 credit hours requires specific approval by the CFGS

## **E. Graduate Associates and Fellows**

### **1. Definition, Credit Hours, Funding, Renewal:**

- a) Many CVM Graduate Students will be hired as Graduate Associates. CVM Graduate Associate (GA) titles are Graduate Research Associate (GRA) and Graduate Teaching Associate (GTA). Students must be in good academic standing in order to hold a GA position. Fellows must register for at least 12 credit hours per semester while GAs are required to register for at least eight credit hours. Students who have passed candidacy only need to register for three credit hours in order to maintain full-time status. Registration recommendations are discussed more in the next section.
- b) Appointments for students are renewable one-year agreements, and may be initiated in any semester of acceptance (Autumn, Spring, or Summer). However, students entering with the Autumn class at the beginning of the funding cycle will have the greatest opportunity to receive fellowship funding.
- c) The CVM follows University guidelines for stipend levels.
- d) Under normal circumstances, students in the MS or PhD CVM graduate program will not be permitted to self-finance graduate school fees. Self-finance is defined as funding of graduate fees from personal resources and does not include fees paid by foreign governments. Under unique circumstances, applicants and their intended advisors may petition to the CFGS to allow the student to self-finance their education.

For students who are not admitted into the residency program, the student's major professors are required to show the source of funding for the stipend, tuition and fees of incoming graduate student prior to final acceptance. Funding sources should be adequate to cover these costs for the time-to-completion period typical for the graduate path the student is enrolled. Consideration will be given to grant renewal opportunities and alternative funding sources. Typical times are:

<b>Path</b>	<b>Time to Degree</b>
<b>MS Degree</b>	<b>2-3 years</b>
<b>PHD Degree</b>	<b>4-5 years</b>

- e) Funds for graduate student stipends are available on a limited basis from the Ohio State Graduate School, which offers Graduate Fellowships for beginning students and Presidential fellowships for outstanding students in their final year. Funds may also be available from off-campus sources such as private foundations, federal agencies, the pharmaceutical industry, etc. Regardless of the source of their financial support, all students must conform to College and Graduate School policy, are expected to participate fully in all aspects of the Graduate Program, and will be evaluated accordingly. Students should be aware that their HR title and the associated benefits may change throughout the course of their graduate studies, and the students should be aware of changes before accepting a position.
- f) Full-time students may not pursue outside employment unless that employment enhances the educational experience of the student. In such instances, the student must delineate the learning objectives that are anticipated from the employment opportunity, and an evaluation process must be defined in order to document success in achieving those learning objectives. Requests must be evaluated and approved by the student's Graduate Advisory Committee. Cases or questions about outside employment may also be referred to the CFGS for review or advice.

NOTE: Full-time residents are not permitted to practice veterinary medicine in any capacity during the course of their residency outside of the duties and responsibilities towards the university as defined by their specialty service. Residents are not permitted to provide paid external consulting services to industry, businesses, foundations, boards or other groups during the course of their residency. Residents may provide paid Continuing Education lectures and presentations during their residency, but these services are subject to approval by the Specialty Service Head and the Department Chair.

- g) The CFGS in collaboration with the Graduate Faculty and CVM Associate Dean for Research and Graduate Studies are responsible for establishing criteria for appointment, evaluation, and requests to deny registration of graduate students. The Ohio State Graduate School makes final decisions regarding dismissal of graduate students.

- h) Students will be evaluated for reappointment based on progress as documented in the online Graduate Student Annual Report and Review process that takes place each December.
- i) A graduate student's stipend must be forfeited if the student either is dismissed from the program or fails to meet the requirements associated with receiving the stipend.

In addition to the termination criteria outlined in the Graduate School Handbook, grounds for dismissal from the Graduate Program include:

- i. Fabrication or deliberate falsification of research data
  - ii. Improper use of research animals
  - iii. Illegal activities such as theft, improper use of drugs, or malicious destruction of property.
- j) Students who are dissatisfied with their treatment in the Graduate Program are encouraged to register their complaints with the Chairperson of the CFGS or CVM Associate Dean for Research and Graduate Studies. If the problem cannot be resolved, and a student wishes to file a formal complaint, grievance procedures established by the University Council on Research and Graduate Studies will be followed. A copy of these procedures is included in Appendix A of this handbook.

## **F. Research Program**

The graduate student in consultation with the advisor is responsible for formulating the Research Proposal and circulating it to the GS Advisory Committee. The proposal should include a testable hypothesis and be sufficiently detailed so that the suitability of the topic and availability of equipment and resources can be assessed prior to any significant investment of time or effort by the student. The Advisor and the GS Advisory Committee are responsible for ensuring that this procedure is initiated by the 3rd semester following admission into the doctoral program and by the 2nd semester in the master's program. A 1-2 page synopsis of the proposed research plan should be attached to the annual review form and submitted to CFGS during the respective year.

## **G. Research Support**

Graduate students and advisors are encouraged to seek continuing sources for research funding from extramural sources (e.g., USDA and NIH fellowships). The advisor and the student's Advisory Committee will assist the student with proposal preparation. The process of proposal writing by the graduate student should be designed to enhance critical thinking and promote effective scientific communication skills.

## H. Animal Use

1. Animals cannot be used for any purpose without an approved protocol. Research animals are purchased and housed through the University Laboratory Animal Resources (ULAR). Animal research in the CVM must conform to guidelines established by the U.S. Department of Health and Human Services and outlined in the Guide for the Care and Use of Laboratory Animals. A copy of the guide is available in the administrative and department office and can also be found on-line at <https://www.nap.edu/read/5140>. The Animal Use Committee for The Ohio State University (IACUC) and in some instances for the College of Veterinary Medicine (clinical research conducted in the hospital) review animal use protocols and assure that these guidelines are followed. Graduate students who fail to follow these guidelines can be dismissed from the graduate program.
2. No student or faculty may work with animals in any way until they have completed the short training program on animal use presented by the Ohio State University Laboratory Animal Resources (ULAR). Those courses are to be taken on-line and more information is available at <http://ular.osu.edu/training>.

## I. Laboratory Safety

To meet Occupational Safety and Health Administration (OSHA), State of Ohio, and University standards, radiation, laboratory and chemical safety classes are required of all graduate students who work in laboratories in the College. These courses are offered through the Department of Environmental Health and Safety,. The student's advisor in compliance with a Chemical Plan will determine if other additional laboratory safety courses are required. More information can be found at <http://ehs.osu.edu>. New graduate students are advised to contact Employee Health to register for an Animal Handlers Services exam at <https://rf.osu.edu/secure/ochre/>.

## J. Training in the Responsible Conduct of Research

*As of Autumn Semester, 2017, new requirements have been put into place regarding training/education in the Responsible Conduct of Research. Students who began their program after Summer Term, 2017 will be required to adhere to this new requirement, outlined in more detail in Sections 4 and 5.*

1. Graduate students in the CVM Graduate Program are to be trained in the proper conduct of research. To accomplish this shared goal of Ohio State and CVM, the Office of Responsible Research Practices offers web-based instruction on the Responsible Conduct of Research (RCR). RCR training is through the Collaborative IRB Training Initiative (CITI) RCR modules. RCR focuses on the responsibilities of scientists in the conduct of research. RCR training was established to comply with the NIH requirement for universities to have a formal mechanism to provide training for predoctoral and postdoctoral trainees concerning scientific integrity and the consequences of scientific misconduct. The

policy of Ohio State is in compliance with those of NIH and requires that all NIH supported graduate students and postdoctoral fellows attend these workshops. In addition, faculty and students funded through other mechanisms are encouraged to attend on a yearly basis. More information about the IRB training can be found at: <http://orrrp.osu.edu/irb/>.

2. Additional training in responsible conduct of research should include policies to deal with potential conflict of interest by researchers at Ohio State. The U.S. Public Health Service has issued regulations designed to ensure that faculty, graduate students, and postdoctoral researchers associated with universities avoid conflicts of interest if they engage in research funded by federal agencies. The State of Ohio also has several statutes concerning conflict of interest situations, specifically Sections 102.03 and 2921.42-43 of the Ohio Revised Code. The Ohio State University has developed a Conflict of Interest Policy for Research that addresses both the federal and state requirements.
3. Graduate students are encouraged to obtain additional training for the proper conduct of research through the use of departmental seminars and a variety of journal clubs throughout the University that periodically devote discussions to topics of research integrity.

## Chapter 4. Master's Degree Program

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### A. Program Description

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The Master's Degree (MS) gives students the opportunity to gain additional knowledge and necessary skills in a field of study offered by the CVM Graduate Program. The MS degree program is designed to train the student in specific research skills and other scholarly activities in their field of study

The MS degree program introduces students to the scientific method and to some of the statistical and laboratory techniques with which to apply it. Under the guidance of an experienced advisor, the student performs research, completes a coherent pattern of courses, critically analyzes the results of his/her research project and learns to write in a manner acceptable to major journals in the discipline. The MS degree in the CVM Graduate Program culminates in a Master's Examination and defense of a thesis.

A successful MS student is expected to accomplish a line of investigation that leads to one or more quality publications in peer reviewed scientific journals. It is normally expected that this publication will be a first-authored by the student. Specific accomplishments that constitute a defensible thesis do not conform to any generic metric. Suitability is determined by the GS Advisory Committee and the student, emphasizing the importance of regular and open communication within the group.

### B. Master's Degree Committees

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- 1. GS Advisory Committee:** Assembling the GS Advisory Committee is an extremely important part of the graduate student's program and should be formed by the end of the student's first year in the program. The GS Advisory Committee shall consist of the student's advisor and at least two additional members of the graduate faculty. The Graduate School may be petitioned to allow one non-Graduate Faculty member to participate on a student's committee. This committee must officially approve both the student's academic plan and research plan.
- 2. Master's Examination Committee:** The members of the student's GS Advisory Committee usually serve also as the Master's Examination Committee. Members must be approved as Graduate Faculty Category M or P. The Graduate School may be petitioned to allow one non-Graduate Faculty member to participate on a student's committee. This committee will conduct the Master's Examination with the advisor serving as Chair.

## C. Course Work & Progress Towards Degree

1. Academic Standards: A 3.0 graduate cumulative point hour ratio must be maintained.
2. Credit Hours: A minimum of 30 graduate credit hours are required for graduation. Of this, 20 credit hours must represent formal graded (A-E) course work at Ohio State. For students transferring to Ohio State from an external institution, up to 10 graded course hours may transfer to Ohio State and count toward the student's degree. New students should work with their advisor and the Graduate Program Coordinator to complete the necessary paperwork in order to transfer the appropriate graduate credit. Students enrolled in the combined DVM/MS program are allowed to double-count 6 credit hours towards both the DVM and MS degrees, provided that the courses are designated both as G (Graduate) and V (Veterinary).
3. Annual Review: Students will be evaluated for reappointment based on progress as documented in the online Graduate Student Annual Report and Review process that takes place each December.
4. Time Limit: The entire work for the master's degree must be completed within five calendar years and should be completed within three years. A student who has not been registered for two consecutive semesters must petition the CFGS for approval to continue, which then must petition the Graduate School to reactivate the student's academic status.
5. **Formal Course Work**
  - a) All students in the CVM Graduate Program will be required to successfully complete (grade of B or better) 2 credit hours of graduate level statistics. NOTE: Students participating in residency programs should also refer to the residency handbooks for specific questions about course requirements and recommendations.
  - b) Enrollment in a college-wide Research Seminar Course (VPM 8891) is required for Autumn and Spring semesters when the student (other than Combined DVM-MS and Clinical resident-MS students) does not have another course essential to her/his graduate program which conflicts with the seminar. Any such conflict should be communicated by email to the CVM Graduate Program Coordinator prior to the first seminar of the semester. In addition to enrollment each semester, **all Non-DVM/MS students** are required to present a seminar at least once in this course during their graduate program (a 20 minute seminar; usually the term of graduation). The seminar is expected to be a presentation of the student's research unless otherwise discussed with the course leader. **Combined DVM-MS** students are required to enroll in the course at least one semester during their graduate program and they are required to present final results of their research (20 minute seminar) during this course. **Clinical resident-MS students** are required to enroll during each Spring Semester of their graduate

program and present their research at least once as a 20 minute seminar (usually the term of graduation); students are encouraged to attend during other semesters as their schedules permit.

c) *The following requirement is in effect for students who began their program in Autumn Semester, 2017 or later*

Graduate students are required to gain education/training in the responsible conduct of research. One of the learning goals for students earning MS and PhD degrees in our Comparative and Veterinary Medicine Graduate Program is to conduct research ethically. To ensure that graduate students are meeting that goal, the Council for Graduate Studies has implemented required training during the graduate program. This requirement may be met in one of two ways (Please consult with your advisor before selecting an option). Depending on the source of funding for your research, your advisor may prefer that you do one over the other and possibly both):

i. Completion of the CITI Online RCR Training course.

<http://orpp.osu.edu/irb/training-requirements/citi/citiinstructions/> This online course covers all federally required topics; may take up to 4 hours depending on knowledge base; can start and stop as necessary; and completion is recorded by OSU. Frequency: Need only be taken once during training program. \*This also is sufficient for USDA and NSF trainees at this time.

ii. A 1 credit (or more) formal course for grade or S/U; Frequency: once during training program; documented by the mentor and the graduate student on the annual report. Potential courses include:

Pharmacy 8520 – Research Ethics; 1 unit, S/U

Education and Human Ecology 8000 – Responsible Conduct of Research; 1 unit, S/U

MedColl 5000 – Responsible Conduct of Research and Research Ethics; 1 unit, S/U

Biomed Engineering 6983 – Research Ethics; 2 units, A-E

Chemistry 6782 – Ethics in Scientific Research; 1 unit, S/U

Nursing 7781 – Responsible Conduct of Research; 3 units, A-E

Vision Science 7960 – Ethics in Biomedical Research; 2 units, A-E

Bioethics 6010 – Biomedical Research Ethics; 3 units, A-E

Surgery 8814 – Responsible Conduct of Research: Human Participants and Use of Animals in Biomedical Research; 2 units, graded

d) When a graduate student enrolls in a course, he/she is expected to attend all classes, participate fully in lectures and laboratory exercises, and complete all projects and reports on time.

## 6. Thesis Research Course Credit

Master's degree students should take either VETBIOS/VETCLIN/VETPREV 7193.01, or 7193.02 (Individual/Independent Study) to obtain credit hours for their thesis research activities. 7193.02 is a graded course, and the student

and advisor must submit a course approval request to the CFGS a minimum of 4 weeks prior to the first day of the semester that the course will be offered (the request form can be found on the college website under graduate studies (<https://cvmcommunity.osu.edu/documents/165>)). For their research credits, MS students should register for 7193.01

## 7. Transfer and Residency Credit

- a) For students who are transferring from another institution or doing work with another institution, a minimum of 24 graduate credit hours must be completed at The Ohio State University.
- b) Students must be registered for at least 3 credit hours and must submit the electronic Application to Graduate Form (<https://gradforms.osu.edu>) to the Graduate School no later than the third Friday of the semester in which graduation is expected. The application is valid for that semester only. The student must have met all other requirements for graduation by the end of that semester.

## D. Research Program

### 1. The Master's Thesis

- a) The MS degree is awarded, in part, based on the completion of a thesis in the CVM Graduate Program. A non-thesis MS degree is available to VCS Clinical Residents (Chapter 4, Section E).
- b) A student must submit a draft of the complete thesis to the Master's Examination Committee two weeks prior to the date of the Master's Examination. Approval of the thesis draft by the Master's Examination Committee is required prior to the Master's Examination.
- c) The thesis is to be submitted electronically to the Graduate School by the required deadline. Refer to the following web site for more information: <https://gradsch.osu.edu/completing-your-degree/dissertations-theses/format-review-and-submission>.
- d) A successful MS student is expected to accomplish a line of investigation that leads to one (or more) quality manuscript to be submitted to a peer reviewed scientific journal. It is expected that this publication will be a first-authored by the student.
- e) The thesis must conform to the Ohio State Graduate School format requirements described in the Graduate School Guidelines published by the Ohio State Graduate School.

### 2. Presentation of Seminar on Research

All students are expected to present a seminar on their research on a regular basis, at least annually. This seminar may be a presentation and discussion

of a research proposal, preliminary data or the final results of his or her research. Each master's candidate is required to present a final defense seminar of the results of his or her thesis in an open seminar. Whenever possible, this is to be presented prior to the final oral examination/defense.

### **3. Master's Examination**

- a) The Master's Examination is a final comprehensive examination to test the student's knowledge of the field and to defend his or her thesis. The examination is to be conducted in accordance with the rules defined in the Graduate School Handbook.
- b) The Master's Examination may be administered only after approval of the draft of the thesis and not later than two weeks before commencement.
- c) The Master's Examination is usually an oral exam, but may include a written portion. It is conducted by the Master's Examination Committee with the student's advisor serving as chairperson.
- d) The advisor is responsible for arranging the examination.
- e) Attendance at the oral examination will be restricted to the student and members of the Master's Examination Committee and the examination may not exceed two hours.
- f) The advisor and committee are responsible for certifying the results of the Master's Examination by approving the electronic Report on Final Examination.
- g) The decision of the Master's Examination Committee must be unanimous. Each examiner indicates judgment by approving the electronic Report on Final Examination. In the event of an unsatisfactory judgment, the Master's Examination Committee must decide whether the student will be permitted to take a second Master's Examination and must record that decision on the Report on Final Examination. If a second examination is held, the Master's Examination Committee would normally be the same as the original one. If circumstances warrant, however, a substitution or substitutions on the committee are allowed, but must be approved by the Dean of the Graduate School. A second unsatisfactory judgment constitutes dismissal of the student from the CVM Graduate Program.

## **E. Non-Thesis MS**

### **1. Non-Thesis Option**

- a) The non-thesis MS can be selected only by those students who are also participating in the Veterinary Clinical Sciences Residency Program.
- b) Students cannot apply directly to the non-thesis option at the time of application to the MS program. A written request to enter the Non-Thesis option must be submitted by the student to their advisor no later than the end

of Spring Semester of their 2<sup>nd</sup> year of the residency program. If the advisor approves, they submit a Letter of Support which is then reviewed by the Section Head and Veterinary Clinical Sciences department chair.

- c) Students undertaking the non-thesis option will be required to meet all the same curricular requirements as students in the thesis option, and are subject to all published Graduate School policies, academic program requirements, and individual residency program requirements.
- d) The thesis requirement is replaced by a requirement for submission of a formatted, publication-ready manuscript to the Master's Examination Committee. Publication of the manuscript would be an expectation but not a requirement prior to completion of the residency and the MS. All students would be required to present their research as a public oral presentation and then to orally defend their work before their Master's Examination committee.
- e) Students utilizing this option must indicate on their Application to Graduate that they are utilizing the Non-Thesis Option.

## 2. Curricular Requirements

- a) Students pursuing the Non-Thesis option must meet the minimum requirements for all MS students with the following additional requirements
  - i. Not more than 6 hours of graduate credit can be transferred from another institution
  - ii. At least 20 credits must be letter-graded (not S/U), of which at least 16 credits must be CVM courses, including mandatory CVM graduate classes in Research Seminar and Critique, Experimental Design, Biostatistics and/or Clinical Epidemiology
  - iii. No more than 8 hours of research credit (courses numbered 7193.01, 7193.02, 8999) can be applied to the 30 credit total
- b) Letter-Graded Graduate Courses (minimum 20 credits required)
  - i. Mandatory College of Veterinary Medicine (CVM) Graduate Courses (Minimum 4 Credits)
    - (a) *VETCLIN 8781 Research Methods & Grantsmanship (1 Credit)*
    - (b) *VETPREV 8891 Graduate Student Seminar (1 credit)*
    - (c) *VETCLIN 8783 Experimental Design & Data Analysis 1 (1 Credit)*
    - (d) *Either VETCLIN 8784 Experimental Design & Data Analysis 2 (1 Credit); or VETPREV 8782 Clinical Epidemiology (1 Credit)*
- c) Other Graduate Courses (Minimum 16 Credits)
  - i. At least 12 credits must be CVM graduate courses
  - ii. All courses, whether from CVM or in another college, should be of direct relevance to residency training program and/or chosen research topic

- d) S/U Graduate Courses (Minimum 16 Credits)
  - i. A maximum of 1 research credit (courses numbered 7193.01, 7193.02, 8999) per semester
  - ii. CVM Journal Clubs, Book Clubs, and Seminar series relevant to the residency training program can be used to fulfill the remainder of the required 30 credit total

## **F. End of Semester Option**

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If a student applies to graduate by the posted deadline but is unable to meet either the examination deadline or the document deadline for the semester, they are eligible for the End-of-Semester option. Students who complete degree requirements by the End-of-Semester deadline will be awarded their degree/diploma at the following semester's Commencement and the student would not have to register or pay fees for the semester in which the degree is actually received.

## **G. Teaching Opportunities**

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Teaching is a unique opportunity to fortify formal training and to gain the self-confidence necessary for future academic growth. Students with a graduate assistantship may be assigned to assist in departmental core courses in the College of Veterinary Medicine. Teaching assignments to a core or elective course will be made by faculty course leaders in consultation with the department Chairpersons and the advisor. NOTE: University policy prohibits students from receiving graduate credit for courses taught by graduate students.

## **CHECKLIST: MASTER'S DEGREE PROCEDURES AND REQUIREMENTS FOR GRADUATION**

- Register for at least three credit hours during the semester in which graduation is expected.
- Submit an electronic Application to Graduate form to the Graduate School no later than the third Friday of the semester (or third Friday of May session for summer graduation) in which graduation is expected. (<https://gradforms.osu.edu>)
- Complete a minimum of 30 credit hours for your program, at least 24 of which must be completed at The Ohio State University, and 20 of which must be graded A-E.
- Complete a graduate-level statistics course with a grade of B or better
- Complete a graduate level bioethics course with a grade of B or better or the CITI Online RCR Training course (for students who began their program in Autumn 2017 or later)
- Prepare a first-author manuscript for submission to a peer-reviewed journal
- Earn a graduate cumulative point hour ratio of at least 3.0.
- Present a defense seminar on your thesis results during the Graduate Student Seminar series or at another appropriate time.
- Satisfactorily complete the Master's Examination no later than two weeks before commencement. The Master's Examination is taken in the semester in which graduation is expected. To take the examination earlier requires permission of the Graduate School.
- Complete electronic submission of the approved thesis to OhioLink by the published deadline for the semester or summer session of graduation. Pay fees at the Student Service Center or at the Graduate School.
- Complete the Comparative & Veterinary Medicine Graduate Program Review Form found in Appendix I.
- Ensure receipt of final grades in the University Registrar's Office by the published deadline

# Chapter 5. Doctor of Philosophy Program

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## A. Program Description

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The doctoral degree program in the CVM Graduate Program provides students the opportunity to achieve a high level of scholarly competence and to contribute to fundamental and new knowledge in their field of research. The program consists of a logical course plan, a variety of educational experiences in the laboratory and classroom, a Candidacy Examination, a dissertation and a Final Oral Examination. Under the guidance of the advisor, students are expected to conceive and test original ideas. A research plan is developed and presented by the student to the GS Advisory Committee for input, discussion, and approval. The research proposal should be submitted early in the research program and should be revised on a regular basis with updates of the research plan and timetable included in an annual report to the CFGS provided by the advisor for each student. A 1-2 page synopsis of the proposed research plan should be attached to the annual review form and submitted to CFGS at the latest by the end of the 2<sup>nd</sup> year in the program.

A successful PhD student is expected to accomplish a line of investigation that leads to one or more first-author quality publications in peer reviewed scientific journals. Specific accomplishments that constitute a defensible dissertation do not conform to any generic metric. Suitability is determined by the GS Advisory Committee and the student, emphasizing the importance of regular and open communication within the group.

## B. Graduate Studies Advisory Committees

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- 1. GS Advisory Committee:** Assembling the GS Advisory Committee is an extremely important part of the graduate student's program and should be formed by the end of the student's first year in the program. The GS Advisory Committee shall consist of the student's advisor (must be Graduate Faculty Category P) and at least 3 Graduate Faculty members (Category M or P). The Graduate School may be petitioned to allow one non-Graduate Faculty member to participate on a student's committee. This committee must officially approve both the student's academic plan and research plan.
- 2. Candidacy Examination Committee:** The Advisor will be Chairperson. The Committee consists of the GS Advisory Committee and must have at least four Graduate Faculty members. Students who have a non-Graduate Faculty member on their GS Advisory Committee, must select an additional Graduate Faculty member (Category M or P) to serve on the Candidacy Examination Committee. Students may also include an additional faculty member, suggested by the Advisor and/or the CFGS, who is not in the research focus area of the advisor to insure the general nature of the examination.

3. **Final Oral Examination Committee:** The members of the Final Oral Examination Committee include the Adviser who serves as chairperson, the other members of the GS Advisory Committee and the Graduate School Representative.

## C. Course Work & Progress Towards Degree

### 1. Academic Standards

A 3.0 minimum cumulative point hour ratio must be maintained. Additional details and rules regarding probation, change of status and/or dismissal if the standards are not met are in The Graduate School Handbook.

### 2. Credit Hours

- a) A minimum of 80 graduate credit hours beyond the baccalaureate degree are required to earn a doctoral degree. Of this, 24 credit hours must be completed at The Ohio State University after the master's degree has been earned or after the first 30 hours of graduate credit have been completed.
- b) Of these, 20 credit hours must be graded (A-E) graduate level courses. Out of these, a maximum of 5 credits can be earned from 7193.02 and only 2 such credits can be earned in any single semester.
- c) If a master's degree has been earned at Ohio State, at least 50 graduate credit hours must be completed beyond the master's degree. A student who has earned a master's degree from another institution may petition the Graduate School for transfer of up to 30 hours of course credit pending approval of the CFGS. New students should work with their advisor and the Graduate Program Coordinator to complete the necessary paperwork in order to transfer the appropriate graduate credit. The GS Advisory Committee must approve the student's requests for transfer credits
- d) When a doctoral student has completed a master's degree at Ohio State and earned graduate credit in excess of the minimum required for that degree, the student's adviser, with the approval of the CFGS, can notify the Graduate School of the courses to be counted towards the 80 credit hours required for the PhD degree. This notification must occur no later than the end of the first semester of the enrollment beyond completion of the master's degree.
- e) Students with fellowships or other awards that support full time training must be registered as full time students for three semesters of the year.
- f) Registration for at least 3 credit hours is required during each of the following semesters:
  - i. Semester of the Candidacy Exam.
  - ii. Semester of the Final Oral Examination (i.e., Dissertation Defense).
  - iii. Semester in which graduation is expected.

**3. Annual Review:** Students will be evaluated for reappointment based on progress as documented in online Graduate Student Annual Report and Review process that takes place each December.

#### **4. Time Limit**

- a) Full-time students are expected to complete their Candidacy Examination no later than at the end of the 6th semester or 2nd year of enrollment in the PhD program. Students participating in a residency program must pass their Candidacy Examination by the end of the 9th semester or 3rd year. If the student enters the PhD program at the conclusion of a master's program at Ohio State, the Candidacy Examination should be taken by the end of the 3rd semester in the PhD program. The CFGS must approve exceptions to these schedules for the Candidacy Examination. The normal time-to-degree is about five years. Funding for students' tuition and fees cannot be guaranteed beyond the fifth year.
- b) The dissertation and final oral examination must be completed within 5 years after admission to candidacy. If a student fails to submit a final copy of the dissertation to the Graduate School within the 5 years of being admitted to candidacy, with the approval of the adviser and CFGS, the student must take a Supplemental Candidacy Examination as outlined in the Graduate School Handbook.

#### **5. Required Course Work**

- a) All students in the CVM Graduate Program will be required to successfully complete (grade of B or better) 2 credit hours of graduate level statistics.
- b) All CVM PhD students (no matter their research laboratory location) and PhD students conducting research in the College of Veterinary Medicine research laboratories that are affiliated with other graduate programs are required to enroll in the college-wide Graduate Student Seminar Course (VETPREV 8891) Autumn and Spring semesters when the student does not have another course, essential to her/his graduate program which conflicts. Any such conflict should be communicated by email to the CVM Graduate Program Coordinator prior to the first seminar of the semester. All PhD students are expected to present two seminars in this course after passing their candidacy examination – one 20 minute seminar (usually the term of the candidacy exam); and one 40 minute seminar (usually the term of graduation). This seminar may be a presentation and discussion of a research proposal, preliminary data or the final results of his or her research.
- c) *The following requirement is in effect for students who began their program in Autumn Semester, 2017 or later*  
Graduate students are required to gain education/training in the responsible conduct of research. One of the learning goals for students earning MS and PhD degrees in our Comparative and Veterinary Medicine Graduate Program is to conduct research ethically. To ensure that graduate students are meeting that goal, the Council for Graduate Studies has implemented

required training during the graduate program. This requirement may be met in one of two ways. Students should consult with their advisor before selecting an option. Depending on the source of funding, the advisor may have specific requirements for training and prefer that you do one over the other and possibly both:

- i. Completion of the CITI Online RCR Training course.  
<http://orpp.osu.edu/irb/training-requirements/citi/citiinstructions/> This online course covers all federally required topics; may take up to 4 hours depending on knowledge base; can start and stop as necessary; and completion is recorded by the university. Upon completion of the course, a copy of the completion certificate should be forwarded to the college Graduate Program Coordinator.
  - ii. A one (1) credit (or more) formal course for grade or S/U; Completion of the course will be documented by the mentor and the graduate student on the annual report. Potential courses include, but are not limited to the following:
    - Pharmacy 8520 – Research Ethics
    - Education and Human Ecology 8000 – Responsible Conduct of Research
    - MedColl 5000 – Responsible Conduct of Research and Research Ethics
    - Biomed Engineering 6983 – Research Ethics
    - Chemistry 6782 – Ethics in Scientific Research
    - Nursing 7781 – Responsible Conduct of Research
    - Vision Science 7960 – Ethics in Biomedical Research
    - Bioethics 6010 – Biomedical Research Ethics
    - Surgery 8814 – Responsible Conduct of Research: Human Participants and Use of Animals in Biomedical Research
- d) Advanced course work is required (7000 level or above) in the student's area of research focus. The student and advisor in consultation with the GS Advisory Committee will plan these course requirements.
- e) When a graduate student enrolls in a course, he/she is expected to attend all classes, participate fully in lectures and laboratory exercises, and complete all projects and reports on time.
- 6. Residency Requirement:** A minimum of 24 graduate credit hours must be completed at The Ohio State University after the master's degree has been earned or after the first 30 hours of graduate credit have been completed.
- 7. Continuous Enrollment Policy:** All students who successfully complete the doctoral candidacy examination will be required to be enrolled in every semester of their candidacy (summer session excluded) until graduation. Students must be enrolled for at least three credits per semester. Refer to the Graduate School Handbook, Section 7.8, for details regarding this policy, non-enrollment; leave of absence, and reinstatement conditions.

8. **Deactivation:** Enrollment eligibility for a pre-candidacy doctoral student who has not registered in the Graduate School within the preceding two years will be automatically deactivated. To reenroll the student must petition the CFGS as outlined in the Graduate School Handbook. Eligibility for doctoral students who have passed the candidacy exam is automatically deactivated at the end of the five-year candidacy period if they have not graduate by then.

## D. The Candidacy Examination

### 1. Description and Purpose

Before admission to candidacy for the PhD, each student is required to pass a comprehensive written and oral Candidacy Examination to determine his/her knowledge in a chosen field of specialization and related subjects and his/her ability to pursue independent research. A Candidacy Examination Committee approved by the Graduate School will conduct the examination. At the end of the semester in which the Candidacy Examination is satisfactorily completed, the student is admitted to candidacy for the doctoral degree.

The purpose of the candidacy examination is to demonstrate a suitably high level of intellectual achievement around the focus of the dissertation area of specialization based on research, courses, and residency (if applicable in the case of residents in combined residency-PhD programs).

### 2. Requirements

Requirements to be fulfilled before scheduling the formal parts of the Candidacy Examination

- a) Selection of a GS Advisory Committee and Candidacy Examination Committee
- b) Completion of program and research focus course requirements
- c) Maintenance of at least a 3.0 (B) or greater graduate cumulative point hour ratio.
- d) Registration for at least 3 credit hours during semester in which the Candidacy Examination is taken.
- e) After successful completion of the Candidacy Exam, students should not register for more than 3 hours per semester until graduation.

### 3. Candidacy Examination Committee (See B.2 of this chapter)

### 4. Examination Committee Approval

An electronic Application for Candidacy form must be completed as early as possible in the semester in which the Candidacy Examination is planned (<https://gradforms.osu.edu>). This form is to be completed before the student begins the written portion of the Candidacy Examination. The form must be completed as a mechanism to allow the advisor and the student to submit for

approval by the Graduate School the names and appointments of the persons on the Candidacy Examination Committee and the proposed date, time, and place of the examination. The Oral Examination must be scheduled at least two weeks in advance.

## 5. Format of Written and Oral Examination

### a) Written Portion

The Candidacy Examination Committee will select the format of the written examination, based on deliberation with the student.

- i. The **didactic format** consists of a written examination taken within a one-week period, followed by the Oral Examination 7-14 days later. Each member of the Candidacy Examination Committee must submit questions that can be answered within a 4 to 8-hour writing period. The questions set by one Examination Committee member will be assigned each day, with the expectation that the student will return answers the same day. Questions are expected to evaluate intellectual achievement in the dissertation area of specialization based on research, coursework and, in the case of combined residency-PhD programs, residency training. The questions are not restricted to a single area of interest. Exams may be open or closed book, depending on the Committee's preference.
- ii. A typed copy of all of the written questions and the student's responses must be provided to each member of the Candidacy Examination Committee at least one week before the oral portion. If performance in the written portion is unsatisfactory, the student may waive his or her right to take the oral portion.
- iii. The **grant proposal format** may be preferred by some committees. The written portion of the examination will take the form of a research proposal that is of sufficient quality to be submitted for funding by a national agency. The advisor will be responsible for identifying the format of the grant proposal (NIH, USDA, foundation, other) and the student will circulate a copy of the request for proposal (or other application guidelines) to the members of the Candidacy Examination Committee.
  - (a) The topic of the proposal will be determined by the Candidacy Examination Committee and may be either unrelated to the student's area of dissertation research, or focused on the student's dissertation problem (The intent of the Graduate Student Committee is to encourage students to subsequently submit these proposals as predoctoral applications (e.g. K-award))
  - (b) In either case, the proposal should include three Specific Aims, with at least two of these aims being novel and innovative aims that are developed by the student, not assigned by the advisor or present in the advisor's existing or pending grant proposals. The student may present up to three potential abstracts for evaluation by the advisor

who will assess the appropriateness of each and make a recommendation regarding their suitability.

- (c) A short summary (not to exceed one page, single-spaced) of the topic and general aims of the proposal is prepared by the student and circulated to the entire Candidacy Examination Committee, which will approve the topic and the proposed specific aims. If not approved, the student will be asked to find another topic or to make major changes to the existing topic, and the process described above is repeated.
  - (d) Unacceptable proposals will be those that (a) have previously been written by the student and evaluated by peer review; (b) intentionally duplicate all or part of an existing research proposal; (c) lie outside the general expertise of the committee members.
  - (e) Once the committee approves the proposal summary, the student may begin writing the proposal. The student will have 4 weeks in which to prepare and submit the final written proposal, which will be evaluated within 2 weeks of submission. The Candidacy Examination Committee will examine the proposal, as well as the Advisor's current and pending grant proposals to ensure that the proposal is in the student's own words and that 2 or more aims are original and creative. The committee may choose one of these options when evaluating the final written proposal:
    - Triage, or major rewrite (to be submitted within 2 weeks)
    - Revise, changes within the document but not a major rewrite (to be submitted within 1 week)
    - Approve as submitted
- iv. Each committee member must submit a written evaluation of the proposal to the advisor, who will copy all such evaluations to the other members of the committee
  - v. Once the committee approves the final version of the written proposal, the student may schedule the Oral Examination.

#### b) Oral Portion

- i. The oral examination must be conducted on a high intellectual level, in a systematic fashion that may extend beyond the specifics of the written component of the examination. All members of the Candidacy Examination Committee must be present for the entire oral examination. The exam may not exceed 2 hours. It is expected that the Committee will evaluate the candidate immediately after the exam.
- ii. After completion, the examination will be analyzed by the Candidacy Examination Committee, in the absence of the candidate. The Committee will briefly address the fairness and rigor of the exam. In the rare case of concern by one or more members, an anonymous vote will be taken to

- disqualify the exam. The faculty advisor should contact the Graduate School to follow the necessary procedures.
- iii. After discussion, the final satisfactory/unsatisfactory decision is reached by means of a written or oral vote. A unanimous vote that the performance was satisfactory is required for passing the examination.
  - iv. Committee members must certify the results of the Candidacy Examination on the electronic Report on Candidacy form within 24 hours after the examination.
  - v. The CFGS must similarly be notified of any recommendations of the Candidacy Examination Committee regarding additional work, courses, or future examinations.
  - vi. If the results of the examinations are unsatisfactory, the student may be permitted to take a second examination no sooner than the following semester and only if her/his Candidacy Examination Committee recommends it. No candidate is permitted to take the Candidacy Examination more than twice.

## E. Research Program

### 1. Dissertation

- a) Electronic Application to Graduate Form  
A student must be registered for at least three credit hours and must submit the Application to Graduate form to the Graduate School no later than the third Friday of the semester in which graduation is expected (<https://gradforms.osu.edu>). The application is valid for that semester only. The student must have met all other requirements for graduation by the end of that semester, including payment of all graduation fees. The student, the adviser and the CFGS Chairperson must sign the form. The names of the Final Oral Examination members must be listed on the form.
- b) The dissertation is a scholarly contribution to knowledge in the area of Veterinary or Comparative Medicine. It generally is comprised of a compilation of manuscripts, which have been prepared for submission for publication in scientific journals in the area of research focus. Information about acceptable formats for the dissertation is available in the Graduate School. The format must be approved by the advisor and be consistent with Graduate School guidelines.
- c) The student must submit a complete, word-processed dissertation draft to the dissertation committee for review and approval or disapproval. Approving the dissertation draft means that the Dissertation Committee members judge it to be of sufficient merit to warrant holding the Final Oral Examination. Each dissertation committee member indicates approval of the dissertation draft by approving the electronic Application for Final Exam form that must be submitted to the Graduate School no later than two weeks before the date of

the final oral examination (and no later than four weeks before commencement). After the final oral examination committee has been approved by the Dean of the Graduate School, the electronic Report on Final Examination and electronic Report on Final Document forms are generated by the Graduate School and made available to the committee in GRADFORMS.

- d) A revised draft must be presented to the all members of the Dissertation Committee (including the Graduate Faculty Representative) one week before the Final Oral Examination (which must take place no later than two weeks before commencement). Final approval of the dissertation cannot occur until the Final Oral Examination has been completed satisfactorily. Each Dissertation Committee member indicates approval on the Report on Final Document form in GRADFORMS that must be submitted to the Graduate School no later than one week before commencement.

## **2. Presentation of Seminar on Research**

All PhD students are expected to present one open seminar per year. This seminar may be a presentation and discussion of a research proposal, preliminary data or the final results of his or her research. Each PhD candidate is required to present a final defense seminar of the results of his/her dissertation in an open seminar. Whenever possible, this is to be presented prior to the Final Oral Examination /Defense.

## **3. Publication of Research Findings**

All PhD students are expected to submit and have published at least one first-author manuscript prior to graduation.

## **4. Final Oral Examination**

- a) The Final Oral Examination tests originality, independence of thought, the ability to synthesize and interpret data, and the quality of research presented. The examination deals extensively with the portion of the candidate's field of specialty in which the dissertation falls, though it need not be confined exclusively to the subject matter of the dissertation. A complete list of policies and rules for the Final Oral Examination are published in the Graduate School Handbook and are summarized below.
- b) The members of the Final Oral Examination Committee include the Adviser who serves as chairperson, the members of the Dissertation Committee who are usually GS Advisory Committee for that student, and the Graduate School Representative (appointed by the Dean of the Graduate School).
- c) The student initiates the Application for Final Exam in GRADFORMS, to notify the Graduate School of the names of the committee members and the proposed time and place of the exam.
- d) Once the Final Oral Examination has been scheduled, the Dean of the Graduate School appoints a Category P Graduate Faculty member to serve as the Graduate School Representative. The Graduate School

- Representative must receive a copy of the dissertation draft no later than one week prior to the examination date. If the representative judges the dissertation to be unsatisfactory, the adviser and Dean of the Graduate School must be so informed at least one day before the examination. After consulting with the students and the dissertation committee members, the advisor may elect to hold the examination as scheduled or postpone it until the situation is resolved.
- e) Attendance at the Final Oral Examination will be restricted to the student, members of the Final Oral Examination Committee and the Graduate School Representative. However, the closed Final Oral Examination may be preceded by an open seminar not to exceed one hour. The open seminar is not a part of the examination and does not require attendance by the Graduate School Representative. The closed final examination should be approximately two hours in length. The Graduate School Faculty Representative reports on the fairness of the conduct of the examination and its conformity to Graduate School rules to the Policy and Standards Committee of the Council on Research and Graduate Studies.
  - f) The Adviser is responsible for certifying the results of the Final Oral Examination (Report on Final Examination in GRADFORMS). The student is considered to have completed the Final Oral Examination successfully when there is no more than one vote of unsatisfactory by the Final Oral Examination Committee. Each examiner indicates judgment by signing the Final Oral Examination Report. In the event of an unsatisfactory judgment, the Final Oral Examination Committee must decide whether the student will be permitted to take a second Final Oral Examination in this department and must record that decision on the Final Oral Examination Report. If a second exam is held, the Final Oral Examination Committee must be the same as the original one, unless substitution is approved by the Dean of the Graduate School. A student whose performance is recorded as unsatisfactory on a second attempt is no longer eligible to be a doctoral candidate at this university. On written appeal by the student or a member of the Final Oral Examination Committee, the Graduate School Grievance Committee reviews the examination to insure its conformity to Graduate School rules and to determine if it was conducted fairly and without prejudice to the student.
  - g) Final approval of the student's dissertation cannot occur until the Final Oral Examination has been completed satisfactorily. Each Dissertation Committee member indicates approval on the Report on Final Document form in GRADFORMS no later than one week before commencement. The advisor signs the title page of the final copy of the dissertation. One copy of the dissertation must be submitted to the Graduate School no later than one week before commencement. An abstract of 350 words or less must be submitted with the dissertation.

## **F. Teaching Opportunities**

Teaching is a unique opportunity to fortify formal training and to gain the self-confidence necessary for future academic growth. Students with a graduate assistantship may be assigned to assist in departmental core or elective courses in the College of Veterinary Medicine. Teaching assignments to a core course will be made by faculty course leaders in consultation with the department Chairperson and the advisor.

NOTE: University policy prohibits graduate students from receiving credit for graduate courses taught by graduate students.

## **CHECKLIST: DOCTORAL DEGREE PROCEDURES AND REQUIREMENTS FOR GRADUATION**

Listed below are the procedures and the requirements of the Graduate School for earning a doctoral degree from The Ohio State University. For more information see the most current version of the Graduate School Handbook.

- Satisfactorily complete the Candidacy Examination and all associated forms.
- Register and enroll for at least three credit hours during the semester in which the Final Oral Examination is taken and in which graduation is expected.
- Submit an electronic Application to Graduate form to the Graduate School no later than the third Friday of the semester in which graduation is expected.
- Complete a minimum of 80 graduate credit hours, at least 50 of which were completed beyond the master's degree. (For a master's degree earned at another institution to count toward the 80 hours, it must be officially transferred.)
- Complete a minimum of 24 graduate credit hours at this university, 20 of which are graded (A-E), graduate level courses
- Earn a graduate cumulative point hour ratio of at least 3.0.
- Present in the Graduate Student Seminar course (VETPREV 8891) at least twice following candidacy
- Have one first-author manuscript published in a peer-reviewed scientific journal
- Submit the electronic Application for Final Exam form no later than 2 weeks prior to the Final Oral Examination
- Satisfactorily complete the Final Oral Examination
- Submit the following no later than one week before commencement:
  - the approved dissertation
  - two abstracts
  - the Survey of Earned Doctorates form
- Pay doctoral hood, microfilming, and binding fees and copyright fee no later than one week before commencement. Fees will appear on the Statement of Account in buckeyelink.
- Receive final grades in the Graduate School by the deadline published in the Master Schedule of Classes and have final grades for all previous graduate coursework taken.
- Complete the CVM Graduate Program Review Form found in Appendix I.

**If you find that you will not be able to complete the requirements within the deadlines you must notify the Graduate School, CFGS, and the CVM Graduate Program Coordinator.**

## Chapter 6. Combined Degree Program

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1. A Combined degree student is a student who is concurrently registered in the College of Veterinary Medicine (DVM degree) and the Graduate School (MS degree).
2. The first year of veterinary medical curriculum must be completed before becoming eligible for dual enrollment. Minimum grade requirements are a 3.0 cumulative point-hour ratio for all previous undergraduate work and 3.3 in the veterinary curriculum.
3. Additional admission requirements for the combined professional/graduate program are 1) an earned baccalaureate or its equivalent, and 2) identified a faculty member willing to serve as a graduate advisor 3) submit a tentative course plan for the graduate degree as a part of their admission package, clearly indicating which courses are to be considered towards the DVM, MS or both degrees (see section E. below).
4. Students who entered the DVM program after 3 years of undergrad schoolwork and obtained early admission to veterinary school will be considered on a case-by-case basis.
5. The student must receive written permission from the Office of Student Affairs of the CVM in addition to acceptance by the Graduate School for admission to this program. The student will be expected to maintain the academic standards of the CVM and the Graduate School for studies in each respective program.
6. Up to 6 credit hours of letter-graded courses approved for both professional and graduate credit may, with the approval of the student's advisor, be applied toward the MS degree. The remaining 24 hours are distributed in the same manner as for other MS students. A minimum of 20 hours of formal graded graduate course work is required.
7. If the student already has an MS and is pursuing a DVM/PhD, up to 20 hours of approved graduate credit courses may be applied toward the PhD degree. The remaining credit hour requirements are the same as for other PhD student requirements.
8. In order to fulfill the requirements of the degree, the student must accomplish a line of investigation that leads to one or more quality publications in peer reviewed scientific journals. It is normally expected that this publication will be first-authored by the student. Specific accomplishments that constitute a defensible thesis do not conform to any generic metric. Suitability is determined by the graduate advisory committee and the student, emphasizing the importance of regular and open communication within the group.

# Chapter 7. Transfer into CVM Graduate Program

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## A. Eligibility

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Graduate students enrolled and in good academic standing in other graduate programs at Ohio State may apply to transfer to the College of Veterinary Medicine.

## B. Admission Procedures

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### 1. Procedures

- a) Complete a Request for Transfer of Graduate Program Form through the Graduate School
- b) Send a Letter of Intent to the CFGS Chairperson. The letter should describe the applicant's background, motivation to transfer into the CVM Graduate program, current interests, and future professional goals.

### 2. Entrance Requirements

- a) A cumulative grade point hour ratio of 3.3 on a scale of 4.0 for current graduate coursework.
- b) The Graduate Record Examination (GRE) Aptitude Test is required. Foreign applicants must also meet the Graduate School Admissions requirements for the Test of English as a Foreign Language (TOEFL) (currently 550 for the paper-based TOEFL, 213 for the computer-based test and 79 for IBT). Old scores are acceptable provided that they were used to enter another graduate program at Ohio State.
- c) A letter of support from a member of the CVM Graduate Faculty willing to serve as the student's advisor. The letter should be on official letterhead and indicate the source of stipend and laboratory resource support and indicate the willingness of the faculty member to serve as the primary advisor for the student.
- d) Two additional letters of support are required from those individuals familiar with the applicant.

## **Chapter 8. Appendices**

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- A. Grievance Procedures**
- B. Suggested Graduate Courses**
- C. Graduate Faculty**
- D. MPH Course Information**
- E. Leave form & Leave Policy**
- F. Useful Links**
- G. Approved GRE Exemption Policy**

## **Appendix A: Grievance Procedures Guidelines**

Some departments have procedures for resolving grievances involving graduate associates. Students are encouraged to bring concerns first to their advisor and/or supervisor, then to the Council for Graduate Studies Chair, Department Chair, or the college Associate Dean for Research and Graduate Studies. Discussion with these individuals will usually lead to complete resolution.

The Graduate School is specifically authorized by the Graduate Council to review grievances related to graduate examinations and graduate associate appointments. The Graduate School Handbook outlines the process for the systematic review of grievances filed by graduate students related to graduate examinations and graduate associate appointments. The aim of the guidelines is to ensure that a graduate student who is unable to resolve a dispute over a graduate examination or a GA appointment locally has access to a review by a knowledgeable group of neutral faculty and graduate students who are not associated with the student's graduate program or appointing unit or who in any other way have a conflict of interest.

The Graduate School is occasionally called upon to address a complaint by a graduate student related to other academic matters. The Graduate School becomes involved in such matters only after all reasonable local efforts to resolve the problem have failed. In accordance with university policy, complaints of harassment, sexual or otherwise, and allegations of scholarly misconduct are directed to the appropriate offices authorized to address them.

The Guidelines for Student Grievances that are brought before the Graduate School are outlined in detail in the Graduate School Handbook, Appendix D. Students and faculty are encouraged to review those guidelines should the need arise.

# Appendix B: Suggested Graduate Courses

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## Course Requirements

### Doctoral degree

- 80 credit hours total
- Transfer credit up to 30 h (CFGS approval required)
- Research seminar (VETPREV 8891)—required each semester unless it conflicts with another class
- Research
  - 7193.01 prior to the candidacy examination
  - 8999 after the candidacy examination
- 20 hours of formal, didactic, letter graded, graduate course work (marked as “G” in the Ohio State class listing system)
- 2 hours of graduate level statistics completed with a grade of “B” or better
- Completion of 1 credit of graduate level bioethics course work with a grade of B or better, OR completion of the CITI Online RCR Training course

These should be completed prior to the candidacy examination.

### Master’s degree

- 30 credit hours total
- Research seminar (VETPREV 8891)
- Research (CVM 7193.01)
- 20 hours of formal, didactic, letter graded, graduate course work (marked as “G” in the Ohio State class listing system)
- 2 hours of graduate level statistics completed with a grade of “B” or better
- Completion of 1 credit of graduate level bioethics course work with a grade of B or better, OR completion of the CITI Online RCR Training course

Note: for Combined Degree (DVM/MS) students, 6 credit hours approved for both graduate and professional credit may be applied towards the MS.

Specific details about call numbers, meeting times, and course availability can be found by consulting the Master Schedule at <http://www.buckeyelink.osu.edu>.

## STATISTICS COURSES

*The following courses will qualify to meet the 2-hour statistics course requirement if completed with a grade of B or better*

<b>VETCLIN 8783</b>	Experimental Design & Data Analysis in Veterinary & Comparative Medicine I	1 credit
<b>VETCLIN 8784</b>	Experimental Design & Data Analysis in Veterinary & Comparative Medicine II	1 credit

<b>VETPREV 7725</b>	Veterinary Epidemiology	3 credits
<b>VETPREV 8782</b>	Veterinary Clinical Epidemiology	1 credit
<b>AEE 8870</b>	Analysis and Interpretation of Data	2 credits
<b>AEE 8880</b>	Instrumentation and Procedures for Data Collection	2 credits
<b>MOLGEN 5650</b>	Analysis and Interpretation of Biological Data (U)	3 credits
<b>STAT 6910</b>	Design and Analysis of Experiments	4 credits
<b>STAT 5301</b>	Intermediate Data Analysis I	4 credits
<b>PUBHBIO 6210</b>	Design and Analysis of Studies in the Health Sciences I	3 credits
<b>PUBHBIO 6211</b>	Design and Analysis of Studies in the Health Sciences II	3 credits
<b>PUBHBIO 6212</b>	Regression Methods for the Health Sciences	3 credits
<b>PUBHBIO 6270</b>	Introduction to SAS for Public Health Students	2 credits
<b>PUBHBIO 7194</b>	Group Studies in Biostatistics	1 credit
<b>PUBHBIO 7220</b>	Applied Logistic Regression	3 credits
<b>PUBHBIO 7230</b>	Applied Longitudinal Data Analysis	3 credits
<b>PUBHBIO 7235</b>	Applied Survival Analysis	3 credits
<b>ANIMSCI 7000</b>	Applied Biometrics	3 credits

## **BIOETHICS**

<b>BIOETHC 6010</b>	Biomedical Research Ethics	1 credit
<b>BIOMEDE 6983</b>	Research Ethics	2 credits
<b>CHEM 6782</b>	Ethics in Scientific Research	1 credit
<b>EHE 8000</b>	Responsible Conduct of Research	1 credit
<b>MEDCOLL 5000</b>	Responsible Conduct of Research & Research Ethics	1 credit
<b>NURSING 7781</b>	Responsible Conduct of Research	3 credits
<b>PHR 8520</b>	Research Ethics	1 credit
<b>SURGERY 8814</b>	Responsible Conduct of Research: Human Participants and Use of Animals in Biomedical Research	2 credits
<b>VISSCI 7960</b>	Ethics in Biomedical Research	2 credits

## **OTHER COURSES LISTED ALPHABETICALLY BY DISCIPLINE**

*Some courses may be listed twice if covering two different areas*

### **AGRICULTURE COURSES**

<b>AEE 8850</b>	Research Methods	2 credits
<b>AEE 8860</b>	Research Design	2 credits
<b>AEE 8870</b>	Analysis and Interpretation of Data	2 credits
<b>ANIMSCI 6067</b>	Physiology of Lactation	2 credits
<b>ANIMSCI 6510</b>	Advanced Meat Technology	3 credits
<b>ANIMSCI 6060</b>	Advanced Reproductive Physiology	3 credits
<b>ANIMSCI 888x</b>	Seminars	1 credit
<b>ANIMSCI 8801</b>	Macronutrients – Lipids and Energy Balance	3 credits
<b>ANIMSCI 8802</b>	Advanced Micronutrient Metabolism	3 credits
<b>ANIMSCI 7620</b>	Food and Nutritional Toxicology	2 credits
<b>ANIMSCI 8834</b>	Comprehensive Approach to Food Safety	2 credits
<b>ANIMSCI 8832</b>	Nutrition in Women's Health	3 credits
<b>ANIMSCI 8833</b>	Diet, Nutrition and Cancer	3 credits
<b>FDSCTE 5430</b>	Food Fermentation	3 credits
<b>FDSCTE 5536</b>	Food Microbiology (lecture)	3 credits
<b>FDSCTE 5546</b>	Food Microbiology (lab)	3 credits
<b>FDSCTE 7536</b>	Advanced Food Microbiology I	2 credits
<b>HUMNNTR 7761</b>	Macronutrient Metabolism	4 credits

### **BIOCHEMISTRY**

<b>BIOCHEM 4511</b>	Introduction to Biological Chemistry (U)	4 credits
<b>BIOCHEM 5613-15</b>	Biochemistry and Molecular Biology I, II, III (U)	3 credits
<b>BIOCHEM 6761</b>	Advanced Biochemistry: Macromolecular Structure and Function	3 credits

### **ENTOMOLOGY**

<b>ENTMLGY 7891</b>	Medical Veterinary Acarology	4 credits
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### **ENVIRONMENTAL HEALTH**

<b>PUBHEPI 7411</b>	Epidemiology in Environmental Health	3 credits
<b>PUBHEHS 6310</b>	Principles of Environmental Health	3 credits

### **EPIDEMIOLOGY**

<b>VETPREV 8810</b>	Principles of Epidemiologic Theory	2 credits
<b>PUBHEPI 6430</b>	Epidemiology I	4 credits
<b>PUBHEPI 7410</b>	Epidemiology II	4 credits
<b>PUBHEPI 7411</b>	Epidemiology in Environmental Health	3 credits
<b>PUBHEPI 6436</b>	Infectious Disease Epidemiology	3 credits

#### **IMMUNOLOGY**

<b>MICRBIO 7010</b>	Cellular and Molecular Immunology	3 credits
<b>BSGP 7022</b>	Host Defense	1.5 credits
<b>VETBIOS 7717</b>	Veterinary, Comparative, And Translational Immunology	1 credit
<b>MICRBIO 7023</b>	Molecular Immunology	1 credit

#### **LABORATORY ANIMALS**

<b>MOLBIOC 7781</b>	Animal Models of Human Disease	1 credit
<b>VETBIOS 7193</b>	Individual Studies (Laboratory Animal Medicine: Niewiesk's section)	1 credit
<b>MOLGEN 5700</b>	Systems of Genetic Analysis	3 credits
<b>ANIMSCI 8780</b>	Molecular Bio Techniques	3 credits

#### **MICROBIOLOGY**

<b>MICRBIO 4000</b>	Basic and Practical Microbiology	4 credits
<b>MICRBIO 4100</b>	General Microbiology	5 credits
<b>MICRBIO 5122</b>	Immunobiology	5 credits
<b>MICRBIO 4110</b>	Microbial Pathogenesis and Immunobiology	3 credits
	<i>Now combined with MICRBIO 522 to form MICRBIO 4110</i>	
<b>MVIMG 5000</b>	Evolution of Emerging Viruses	2 credits
<b>MICRBIO 5161H</b>	Bioinformatics & Molecular Microbiology	3 credits
<b>MICRBIO 5546</b>	Food Microbiology	3 credits
<b>MICRBIO 5147</b>	Eukaryotic Pathogens	3 credits
<b>MICRBIO 5149</b>	Introductory Virology	3 credits
<b>MICRBIO 6020</b>	Microbial Physiology and Biochemistry	3 credits
<b>MICRBIO 5150</b>	Microbial Ecology	3 credits
<b>MICRBIO 5155</b>	Environmental Microbiology	3 credits

<b>MICRBIO 6080</b>	Advanced Microbial Genetics	3 credits
<b>MICRBIO 7010</b>	Cellular and Molecular Immunology	3 credits
<b>MICRBIO 6020</b>	Microbial Physiology and Biochemistry	3 credits
<b>MICRBIO 7023</b>	Molecular Immunology	1 credit
<b>MICRBIO 7724</b>	Molecular Pathogenesis	3 credits
<b>VETBIOS 7741</b>	Molecular Biology and Pathogenesis of Viruses	5 credits
<b>MICRBIO 7899</b>	Microbiology Colloquium	1 credit
<b>MICRBIO 8032</b>	Advanced Cellular Immunology	1 credit
<b>IBGP 7950</b>	Host/Pathogen Interaction Research Seminar	1 credit

### **ONCOLOGY/CANCER GENETICS**

<b>MOLGEN 4500</b>	General Genetics	3 credits
<b>MOLGEN 4606</b>	Molecular Genetics	4 credits
<b>MOLGEN 5607</b>	Cell Biology	3 credits
<b>MOLGEN 5608</b>	Genes and Development	3 credits
<b>VETBIOS 6640</b>	Fundamentals of Oncology	4 credits
<b>MOLGEN 5715</b>	Developmental Genetics	2 credits
<b>MOLGEN 5733</b>	Human Genetics	2 credits
<b>MVIMG 7340</b>	Human Cancer Genetics and Epigenetics	2 credits
<b>MCB 7831</b>	Eukaryotic Genome: Structure and Expression	3 credits

### **PATHOLOGY**

<b>VBS 8810-8812</b>	Advanced Systemic Pathology	2 credits
<b>VETBIOS 8893.01</b>	Applied Comparative Pathology	1 credit
<b>VETBIOS 8893.02</b>	Veterinary Surgical Pathology	1 credit
<b>VETBIOS 8739</b>	Specialty Training in Clinical Pathology	1 credit
<b>VETBIOS 8895.03</b>	Seminar in Veterinary Clinical Pathology	1 credit
<b>VETBIOS 8895.02</b>	Seminars in Diagnostic Veterinary Pathology	1 credit

### **PHARMACOLOGY**

<b>Phar 5600</b>	General Pharmacology	3 credits
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## **PUBLIC HEALTH COURSES**

<b>PUBHBIO 6210</b>	Design and Analysis of Studies in The Health Sciences I	3 credits
<b>PUBHBIO 6211</b>	Design and Analysis of Studies in The Health Sciences II	3 credits
<b>PUBHBIO 6212</b>	Regression Methods for the Health Sciences	3 credits
<b>PUBHBIO 7194</b>	Group Studies in Biostatistics	1 credit
<b>PUBHEPI 6430</b>	Epidemiology I	4 credits
<b>PUBHEPI 7410</b>	Epidemiology II	4 credits
<b>PUBHEPI 7411</b>	Epidemiology in Environmental Health	3 credits
<b>PUBHEPI 6436</b>	Infectious Disease Epidemiology	3 credits

## **VETERINARY CLINICAL SCIENCES COURSES**

<b>VETCLIN 7724</b>	Feline Medicine	3 credits
<b>VETCLIN 7792</b>	Advanced Theriogenology Laboratory	1 credit
<b>VETCLIN 7793</b>	Lectures in Equine Theriogenology	1 credit
<b>VETCLIN 7710.09</b>	Applied Veterinary Medicine: Equine Surgery	2 credits
<b>VETCLIN 8781</b>	Research Methods and Grantsmanship	1 credit
<b>VETCLIN 8790</b>	Veterinary Clinical Pharmacology and Therapeutics	1.5 credits
<b>VETCLIN 8822</b>	Advanced Veterinary Medical Sciences Courses coordinated by the Graduate Studies Committee	
<b>VETCLIN 8822.02</b>	Advanced Veterinary Internal Medicine: Gastroenterology	2 credits
<b>VETCLIN 8822.03</b>	Advanced Veterinary Internal Medicine: Respiratory Disease	2 credits
<b>VETCLIN 8822.04</b>	Advanced Veterinary Internal Medicine: Neurology	2 credits
<b>VETCLIN 8822.05</b>	Advanced Veterinary Internal Medicine: Cardiovascular Diseases	2 credits
<b>VETCLIN 8822.06</b>	Advanced Veterinary Internal Medicine: Nephrology and Urology	2 credits
<b>VETCLIN 8822.07</b>	Advanced Veterinary Internal Medicine: Hematology & Oncology	2 credits
<b>VETCLIN 8822.08</b>	Advanced Veterinary Internal Medicine: Hepatology	2 credits
<b>VETCLIN 8822.09</b>	Advanced Veterinary Internal Medicine: Dermatology	2 credits
<b>VETCLIN 8822.10</b>	Advanced Veterinary Internal Medicine: Clinical	2 credits

	Ophthalmology	
<b>VETCLIN 8833 Sequence</b>	Advanced Veterinary Surgical Sciences - 8833 Courses coordinated by the Graduate Studies Committee	
<b>VETCLIN 8833.01</b>	Advanced Veterinary Surgery: Anesthesia and Critical Care	2 credits
<b>VETCLIN 8833.02</b>	Advanced Veterinary Surgery: Gastrointestinal Surgery	2-3 credits
<b>VETCLIN 8833.03</b>	Advanced Veterinary Surgery: Respiratory and Thoracic Surgery	2-3 credits
<b>VETCLIN 8833.04</b>	Advanced Veterinary Surgery: Neurosurgery	2-3 credits
<b>VETCLIN 8833.05</b>	Advanced Veterinary Surgery: Cardiovascular & Hemolymphatic Surgery	2-3 credits
<b>VETCLIN 8833.06</b>	Advanced Veterinary Surgery: Renal, Urinary, & Reproductive Surgery	2-3 credits
<b>VETCLIN 8833.07</b>	Advanced Veterinary Surgery: Musculoskeletal Surgery	2 credits
<b>VETCLIN 8833.08</b>	Advanced Veterinary Surgery: Reconstructive Surgery	2 credits
<b>VETCLIN 8833.09</b>	Selected Surgical Topics	2 credits
<b>VETCLIN 8893 Sequence</b>	Seminars in Veterinary Clinical Sciences - Coordinated by the Graduate Studies Committee;	
<b>VETCLIN 8895.01</b>	Advanced Topics in Veterinary Cardiology	1 credit
<b>VETCLIN 8895.02</b>	Advanced Topics in Veterinary Clinical and Comparative Oncology	1 credit
<b>VETCLIN 8895.07</b>	Advanced Topics in Veterinary Neurology	1 credit

#### **VETERINARY PREVENTIVE MEDICINE COURSES**

<b>VETPREV 8700</b>	Molecular Epidemiology of Infectious Diseases	3 credits
<b>VETPREV 7721</b>	Epidemiology of Zoonotic Diseases	3 credits
<b>VETPREV 7722</b>	Foodborne Diseases, Food Animal Production Systems, and Food Safety	3 credits
<b>VETPREV 7723</b>	Biosecurity, Environmental Health and Other Veterinary Public Health Topics	3 credits
<b>VETPREV 7777</b>	Prevention, Control, and Eradication of Communicable Diseases	2 credits

<b>VETPREV 7776</b>	Dairy Herd Management and Preventive Medicine	2 credits
<b>VETPREV 7895.02</b>	Literature of Production Medicine	1 credit
<b>VETPREV 8613</b>	Preventing Metabolic Diseases and Records Analysis for Dairy Cattle	3 credits
<b>VETPREV 7774</b>	Bovine Theriogenology	2 credits
<b>VETPREV 8810</b>	Principles of Epidemiologic Theory	2 credits
<b>VETPREV 8891</b>	Seminar in Veterinary Preventive Medicine	1 credit

## Appendix C: CVM Graduate Faculty

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## Appendix D: MPH Course Information

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### Veterinary Public Health Specialization

An area of specialization identified as Veterinary Public Health is available which could be pursued by students in either the Master of Science or Doctor of Philosophy degree programs. The specialization program would require the student to become proficient in the areas of epidemiology, biostatistics, diseases important to veterinary public health, and veterinary public service by completing the required courses listed below. In addition, the student will complete an internship of three academic quarters in a public health agency, dealing with veterinary public health concerns. The student will also be required to meet all the department's and university's degree requirements.

#### Required Courses:

VETPREV 7721	Epidemiology of Zoonotic Diseases
VETPREV 7722	Food-Borne Diseases, Food Animal Production Systems, and Food Safety
VETPREV 7723	Biosecurity, Environmental Health, and Other Veterinary Public Health Topics
PUBHBIO 6211	Design and Analysis of Studies in the Health Sciences II
VETPREV 7725	Veterinary Epidemiology and Applied Data Analysis OR
PUBHEPI 7410	Epidemiology II and Lab

#### Electives:

to be decided between the student and their adviser

Please note that other Graduate Minors and Interdisciplinary Specializations are open to OSU graduate students. This information can be found at

<http://www.gradsch.osu.edu/graduate-interdisciplinary-specializations.html>

## Appendix E: Leave Guidelines

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Leave of Absence guidelines and expectations for Graduate Students in the College of Veterinary Medicine

In a rare circumstance over the course of a graduate degree program, a graduate student may encounter a serious personal health condition that requires a leave of absence to care for themselves or a dependent, immediate family member with a serious condition.

A graduate student who has completed two out of three semesters may be considered for a LOA of up to 6 weeks not more than once in the course of graduate study.

The expectation by the Program is the graduate student and advisor design a tractable plan to protect the graduate student's academic progress during the LOA. Diligent effort is expected to maintain the Graduate student's appointment and stipend support.

Medical documentation is required for a leave of absence for medical/family reasons.

Graduate Students in staff positions are also bound by the leave balance that they have accumulated and are required to submit Ohio State leave forms.

Residents are also bound by the leave policies established by their residency program.

Graduate School Resource

<http://www.gradsch.ohio-state.edu/appendix-e.html>

# Leave Form for Graduate Students

## SECTION I. TO BE COMPLETED BY THE STUDENT AND SUBMITTED TO APPOINTING UNIT SUPERVISOR

Student's Name (Print): \_\_\_\_\_

Student's Appointing Unit: \_\_\_\_\_ Student's Graduate Program: \_\_\_\_\_

Student's Appointment Type (check one):

Graduate Associate (GTA, GRA, GAA)       Fellow       Trainee

Short-term absence (generally one to three days; may be up to two weeks in rare circumstances)       Leave of absence (See definitions on page two; attach appropriate documentation in support of the request.)

Personal illness/injury

Personal serious health condition

Death in family

Care for an immediate family member with a serious health condition

Other (explain):

Childbirth or adoption

\_\_\_\_\_

\_\_\_\_\_

**Dates of Requested Absence:** From \_\_\_\_\_ To \_\_\_\_\_

I certify that the information provided as part of this request is true, accurate, and complete. I understand that a person who, knowingly and with intent to defraud, requests leave using materially false information is guilty of fraud, which may result in disciplinary action, including action under the *Code of Student Conduct*.

**Signature/Date – Student:** \_\_\_\_\_

## SECTION II. TO BE COMPLETED BY APPOINTING UNIT SUPERVISOR

Note: In the case of a leave of absence, the following signatures are required: the appointing unit supervisor; the student's advisor; and the student's graduate studies committee chair. **Once a decision has been made, a completed copy of the form should be returned to the student requesting leave.**

### Action

Approved       Not approved.

Comments (or attach explanation):

\_\_\_\_\_

Signature/Date - Appointing Unit Supervisor:

\_\_\_\_\_

Signature/Date (required for leave of absence) - Student's Advisor:

\_\_\_\_\_

Signature/Date (required for leave of absence) – (Graduate Program Coordinator)

\_\_\_\_\_

### **SECTION III. DEFINITIONS**

*Serious health condition* – an illness, injury, impairment, or physical/mental condition that meets any one of the following:

- Involves inpatient care in a hospital, hospice, or residential medical care facility, including any period of incapacity or any subsequent treatment in connection with such inpatient care.
- Continuing treatment by a health care provider that consists of a period of incapacity that also involves treatment multiple times by a health care provider, or treatment at least once by a health care provider that results in a regimen of continuing treatment and continuing incapacity.
- Chronic conditions – episodic incapacity (e.g. diabetes, epilepsy), permanent/long-term conditions (e.g. Alzheimer's, cancer) or multiple treatments (e.g. chemotherapy, dialysis)

*Immediate family* – spouse, domestic partner, mother, father, sister, brother, daughter, son, grandparent, grandchild, mother-in-law, father-in-law, sister-in-law, brother-in-law, daughter-in-law, son-in-law, grandparent-in-law, grandchild-in-law, or corresponding relatives of the graduate student's partner, other persons for whom the graduate student is legally responsible, and anyone who stood *in loco parentis* to the graduate student as a child. To use a leave of absence for the care of a domestic partner or for the corresponding relative of the partner, a completed Affidavit of Domestic Partnership for Funded Graduate Students' Leaves of Absence must be on file with the Graduate School.

*Childbirth/Adoption:*

- Birth mother – a female who gives birth to a child.
- Father – a male who is legally responsible for child rearing as the male spouse or domestic partner of the birth mother.
- Domestic partner – a same- or opposite-sex adult partner who has met the requirements of and has a completed Affidavit of Domestic Partnership on file with the Graduate School.
- Adoptive parent – a parent who has taken a child into one's family, through legal means, to raise as one's own child

### **SECTION IV. APPOINTING UNIT TRACKING REQUIREMENTS**

By category of GA, trainee, or fellow, appointing units will periodically be asked for the information listed below in order to assess the program; therefore, appointing units should develop procedures and identify personnel to track this information in order to be prepared to respond to these data requests.

- The number of leaves of absence approved and reason for the leave (personal illness, family illness, or childbirth/adoption)
- The length of the approved leaves of absence
- The number of leaves of absence not approved and reasons why

## Appendix F: Useful Links

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<http://www.buckeyelink.osu.edu/> For students, a one-stop destination for essential Ohio State resources and services

<https://www.gradsch.ohio-state.edu/> The Graduate School homepage: links to many forms & policies necessary as students work towards their degrees

<http://www.gradadmissions.osu.edu/> The Office of Graduate Admissions

<http://www.ureg.ohio-state.edu/ourweb/more/content/bigcal.html> Academic Calendar

<http://oia.osu.edu/> Office of International Affairs

<http://www.osp.osu.edu/> Ohio State Office of Sponsored Programs

[www.ets.org](http://www.ets.org) Registration information for GRE and TOEFL exam

<http://www.vet.ohio-state.edu/research.htm> CVM Office of Research and Graduate Studies

# **Appendix G: Criteria to Waive GRE Requirement**

## **Purpose:**

The purpose of this policy is to provide an admission opportunity to individuals who hold an advanced degree (including but not limited to DVM, MD, DDS, MS, MPH etc.) and have tremendous potential for graduate studies. The individual will have identified an adviser among the CVM faculty who is committed to directing his/her graduate program, and who will generate an academic plan for and with the student prior to a final admission decision.

This policy addresses the situation that the applicant fulfills the Graduate Program admission requirements with the exception of the GRE scores. This policy allows for a petition from the CVM advisor to the Council for Graduate Studies requesting an exemption to the requirement that the GRE be taken and/or scores submitted by the applicant.

## **Eligibility Criteria:**

In order to be eligible to apply for the exemption the applicant must meet at least one of the following criteria:

- 1) The applicant has documented professional experience or training in the field of study he/she desires to pursue e.g., a record of employment for minimum of 2 years with exceptional accomplishments that are documented, including in a letter from previous supervisor(s) using the attached reference letter template.
- 2) The applicant has documented an approved clinical or research internship in the field of study he/she desires to pursue, with exceptional accomplishments that are documented, including in a letter from previous supervisor(s) using the attached reference letter template.
- 3) The applicant already has earned the Master of Science degree from an accredited university and has first or senior authored publication(s) in peer-reviewed international journals which can be accessed via PubMed or other research databases (e.g. CAB abstracts).

The faculty advisor will submit the exemption request letter and complete Graduate Program application package to the chair of the Council for Graduate Studies. The Council will review the request and inform the faculty member of the final decision. If the GRE exemption is approved by Council for Graduate Studies, conditional admission will be recommended to The Ohio State University Graduate School. The conditionally-admitted student is expected to achieve a minimum grade of B in at least 10 credits within the initial 2 semesters in the Program of his/her course work. Those students enrolled in the Clinical Residency Program, must maintain a B average in their mandated course plan.

This policy will be reevaluated on a 3-year interval by metrics including number of exemptions granted; GPA of this population of students; number of publications generated by these students; time to graduation.

**REFERENCE FOR COMPARATIVE & VETERINARY MEDICINE GRADUATE PROGRAM AT THE OHIO STATE UNIVERSITY COLLEGE OF VETERINARY MEDICINE**

APPLICANT'S NAME: \_\_\_\_\_

REFERENCE'S NAME: \_\_\_\_\_

1. What is your relationship with the applicant? Teacher (Professor)/Employer/Supervisor/ Other (please describe) \_\_\_\_\_
2. How long have you known the applicant? \_\_\_\_\_ Years  
\_\_\_\_\_ Months
3. Do you know the applicant well enough to give her/him a recommendation? Yes  
No  
  
(please return without filling out remainder of application if answer is "no")
4. Please compare the applicant with a representative group of students/employees with similar experience and training in your field for the following criteria:

**3 – Exceeds Expectations; 2 – Meets Expectations; 1 – Below Expectations  
NA - Not Applicable; DNO - Did Not Observe  
\*Explanation required if applicant rated "Below Expectations"\***

**General Bench Research Skills**

Performance of Bench Techniques	3	2	1	NA	DNO
---------------------------------	---	---	---	----	-----

\_\_\_\_\_

\_\_\_\_\_

Ability to Design an Experimental Protocol	3	2	1	NA	DNO
--	---	---	---	----	-----

\_\_\_\_\_

\_\_\_\_\_

Ability to Reproduce Experimental Results	3	2	1	NA	DNO
---	---	---	---	----	-----

\_\_\_\_\_

\_\_\_\_\_

Ability to Present/Troubleshoot/Interpret Results	3	2	1	NA	DNO
---	---	---	---	----	-----

\_\_\_\_\_

\_\_\_\_\_

Maintains Organized Documentation of Results 3 2 1 NA DNO

---

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Maintains High Standard of Laboratory Ethics 3 2 1 NA DNO

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**General research scholarly skills**

Reading and Applying Scientific Manuscripts 3 2 1 NA DNO

---

---

Ability to Think Critically 3 2 1 NA DNO

---

---

Writing Research Abstracts 3 2 1 NA DNO

---

---

Writing Research Manuscripts for Peer Review 3 2 1 NA DNO

---

---

**Ability to Work in Research Ream**

Responsive to Instruction from Senior Investigator 3 2 1 NA DNO

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---

Responsive to Instruction from Laboratory Staff 3 2 1 NA DNO

---

---

Works Well with Others 3 2 1 NA DNO

---

---

5. Please write a brief description of this applicant's role in bench research and production of abstracts, reports, or manuscripts under your supervision.

# **Appendix H: Graduate Program Review Form**

---

## **Purpose:**

The purpose of this form is to gather information from students just prior to their graduation in order to provide ongoing graduate program assessment data for use by the College of Veterinary Medicine in periodic reviews of our Comparative & Veterinary Medicine Graduate Program. Program assessment is vital in ensuring that we provide a relevant and challenging graduate program.

**Comparative & Veterinary Medicine Graduate Program Review Form**  
The Ohio State University College of Veterinary Medicine

*This instrument is completed online at <https://gradeval.vet.ohio-state.edu/program-review-form>*

Responses to the following questions provided by graduate students at the time of their preparation to graduate are designed to provide ongoing graduate program assessment data for use by the College of Veterinary Medicine in periodic reviews of our Comparative & Veterinary Medicine Graduate Program. Program assessment is vital in ensuring that we provide a relevant and challenging graduate program.

Student Name:

---

Graduate Advisor:

---

Degree:

---

Academic Term of Graduation:

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*Please answer YES or NO AND provide an explanation for each question.*

**Learning Goals 1-3:** Graduates will independently and effectively design, conduct and analyze research; develop critical problem solving skills; and, critically review scientific literature.

1. Did your graduate experience provide you the necessary background to understand the scientific method?
  
  
  
  
  
  
  
  
  
  
2. Did your graduate experience provide you the necessary background to formulate and conduct original research?
  
  
  
  
  
  
  
  
  
  
3. Do you feel that you can use critical thinking to address problems?

4. Are you now able to critically review scientific literature?

**Learning Goal 4:** Graduates will effectively communicate research findings and their significance (in oral and written format) to both scientific and lay audiences.

1. Did the program increase your communication skills?
2. Which of the following did you find most effective for enhancing your communication skills, and why?
  - a. Lab and/or research group meetings
  - b. VPM 8891, college wide graduate student seminar course
  - c. Regional/national/international scientific meetings
    - i. Attendance
    - ii. Poster/oral presentations

**Learning Goal 5:** Graduate will conduct research ethically.

1. Did you feel you obtained proper education and training in bioethics during your graduate program for a career in biomedical research?
2. Did you find the required course in bioethics to be a valuable part of your research training?
3. Did you feel that your dissertation research was performed in an ethical manner?
  - a. If not, from your training in bioethics, what benchmark(s) were not met to make you consider that the research was not ethically sound?
  - b. If yes, from your training in bioethics, what benchmark(s) were met to make you consider that the research was ethically sound?

**Learning Goal 6:** Graduates will exhibit professionalism and leadership.

1. Did the program increase your knowledge of professional development and professional activities?
2. Do you currently participate in professional societies and activities? Please specify, including any leadership roles.

**Additional Questions:**

1. Did you encounter specific problems as a graduate student?
2. How might those problems have been avoided or corrected?
3. Were the faculty, staff and administrators helpful and supportive?
4. How did you choose this graduate program and your advisor?
5. Would you choose graduate work in the Comparative & Veterinary Graduate Program if you had to make the choice again? Please explain your response.
6. What are your suggestions as to how we might enhance the recruitment of culturally diverse graduate students and be more sensitive to issues of cultural diversity?
7. Please make suggestions for improving other aspects of the graduate program.
8. What are your immediate career/academic plans now?
9. If you are willing to provide, what would be the best way to contact you in the future?