

**POLICIES AND PROCEDURES MANUAL FOR**  
**GRADUATE STUDENTS**

**DEPARTMENT OF VETERINARY CLINICAL SCIENCES**  
**SCHOOL OF VETERINARY MEDICINE**  
**PURDUE UNIVERSITY**

**Approved by VCS Faculty on August 30<sup>th</sup>, 2010**

Amended by VCS Graduate Program Committee on May 8<sup>th</sup>, 2013

Graduate students in the department of Veterinary Clinical Sciences are governed by the rules in effect at the time of enrollment. If a rule changes while the student is in the program, the student may elect to be governed under the new rule in effect or under the version of the rule in effect at the time of first enrollment:

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# THE GRADUATE PROGRAM

As a unit of the Graduate School of Purdue University, the department of Veterinary Clinical Sciences (VCS) offers graduate programs leading to the Master of Science (M.S.) non-thesis degree and the M.S. thesis degree. The department also offers the Doctor of Philosophy (Ph.D.) degree with oversight provided by the Graduate School. Graduate training in translational research may be pursued in a number of fields related to clinical and basic sciences, including Anesthesiology and Pain Management, Behavior, Cardiology, Clinical Epidemiology and Population Medicine, Dentistry, Diagnostic Imaging (Radiology), Large Animal Internal Medicine, Large Animal Surgery, Oncology, Ophthalmology, Production Medicine (Ruminant and Swine), Radiation Oncology, Small Animal Internal Medicine, Small Animal Surgery, Theriogenology and Veterinary Homeland Security. The VCS department, along with the Veterinary Teaching Hospital, has state of the art facilities, equipment and infrastructure for studying the health and diseases of animals, conducting clinical trials and translational research.

The primary goal of the advanced degree program is to prepare students for successful careers in academia, research, specialty clinical practice, government, or industry. Criteria for recommending granting of the M.S. degree (non-thesis and thesis) are demonstrated ability to: (1) understand the scientific method; 2) effectively communicate in their field of study; (3) think critically and creatively about problems in their field of study; and (4) conduct their activities in an ethical and responsible manner. In addition, for successful completion of the M.S. thesis degree candidates will be able to apply the scientific method and conduct research using the abilities listed above. For successful completion of the Ph.D. degree, candidates are also expected to plan and conduct original research, and engage in scholarship and other creative endeavors. Students can focus their studies and research in any of the fields listed above.

The VCS Residency programs, designed to train veterinarians for specialty clinical practice, are combined with the graduate program. While the requirements for the M.S. non-thesis or thesis degree can usually be completed in a shorter time period (2 years), the duration of a combined Residency/M.S. program is usually three years, reflecting the time required to satisfy the objectives of both programs. The duration of a combined Residency/Ph.D program should be a minimum of five years, reflecting the time required to satisfy the objectives of both programs.

Directions for completing the application process are described below, and applications must be approved by both the Graduate School of Purdue University ([www.grad.purdue.edu](http://www.grad.purdue.edu)) and the Graduate Program Committee (GPC) and Head of the department of VCS.

## **Application Procedures and Addresses**

Prospective applicants should contact the department head or a faculty member of VCS before starting the application process, in order to determine whether a suitable research training position and financial support are available. Applicants to the VCS graduate program must apply to the Graduate School at Purdue University. The application will be forwarded to the VCS GPC for review and approval.

The VCS contact address is:

Head, Dept. of Veterinary Clinical Sciences, Attention: Graduate Program Administrator  
Purdue University  
Lynn Hall of Veterinary Medicine, Room 1352  
625 Harrison St.  
West Lafayette, IN 47907-2026  
Email: [jsheely@purdue.edu](mailto:jsheely@purdue.edu)

For additional information, contact the VCS office, Telephone 765-494-9900, or visit [www.vet.purdue.edu/vcs/](http://www.vet.purdue.edu/vcs/).

Following approval of the application by the VCS GPC, the applicant will be contacted by the VCS office in order to complete the application documents which include: (1) letter of intent (one to two pages), (2) curriculum vitae, (3) official transcripts from each university that the applicant has attended, and (4) three letters of recommendation evaluating the applicant's potential for graduate studies. Applicants to the combined Residency/M.S. program do not need to submit a second copy of requirements (1), (2), (3), and (4) to the VCS department as long as they have submitted the same information as part of their application to the residency training program. However, it should be noted that an additional requirement for application to the graduate program is that in part (3) the application must include official transcripts from each university that the applicant has attended and not just the official transcript from the veterinary college or school.

Foreign applicants must also include in their application to VCS evidence of satisfactory performance on the TOEFL test (Test of English as a Foreign Language; [www.toefl.org](http://www.toefl.org)) or the IELTS test (International English Language Testing System; [www.ielts.org](http://www.ielts.org)) for students from countries where English is not their native language. Applicant must achieve the minimum test scores set by the Graduate School (see Section III of *Policies and Procedures for Administering Graduate Student Programs* available online: [www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf)) The Graduate Record Examination (GRE) and Graduate Management Aptitude Test (GMAT) are not required for admission of students with post-baccalaureate or professional degrees. More information for prospective international graduate students is available at: [www.gradschool.purdue.edu/students/prospective/internationalStudents.cfm#admission](http://www.gradschool.purdue.edu/students/prospective/internationalStudents.cfm#admission)

Applicants must also apply electronically to the Graduate School at Purdue University ([www.grad.purdue.edu](http://www.grad.purdue.edu)). A small nonrefundable fee will be charged for your application to the Graduate School.

### **Financial Support**

Students may apply for University assistantships and fellowships as forms of financial aid to support graduate study (<http://www.gradschool.purdue.edu/funding>). Employment is incidental to graduate study. Students who receive fellowships are not employees and are not obligated to provide services to the University. The purpose of fellowships is to recognize outstanding graduate students and to support their education. While there are broad policies and procedures

covered in this document that may apply to fellowships, in general, these guidelines are intended to address graduate student employment.

Graduate students who are employed by the University provide services (teaching, research, administrative/ professional) that further the missions of the University while providing students with valuable professional experience and financial remuneration in the form of tuition remission and a salary. These students are considered employees and are subject to the policies and procedures outlined in the Purdue University Graduate School Fellowship Manual (<http://www.gradschool.purdue.edu/funding>).

There are five basic classifications of employment for students who are eligible for a graduate appointment:

- 1. Graduate Teaching Assistant:** The responsibilities of the Graduate Teaching Assistant could include any tasks related to the instruction of students. Graduate Teaching Assistants might have primary responsibility for a course, a recitation section, or a laboratory section. A Graduate Teaching Assistant might serve as a tutor or might provide assistance to a faculty member in instruction in a course through such tasks as grading papers, preparing hand-outs, placing materials on the Web, or assisting in clinical assignments.
- 2. Graduate Lecturer:** The responsibilities of the Graduate Lecturer are similar to those of the Graduate Teaching Assistant but at a more senior level. Normally Graduate Lecturers teach courses beyond the 100-level. Appointment to this category is based on demonstrated excellence in teaching as a Graduate Teaching Assistant and is made at the discretion of the department head or in a manner consistent with the governance of a particular academic unit when the following conditions have been met: The graduate student must have passed the preliminary examination and be classified as a doctoral candidate (Class D); the graduate student is enrolled in 699 for research credits and has completed all course work on the plan of study; the graduate student has been a Graduate Teaching Assistant for at least four academic sessions prior to appointment as a Graduate Lecturer.
- 3. Graduate Administrative/Professional:** Duties that are generally administrative and/or professional in nature and are assigned to a graduate student staff member fall within the purview of a Graduate Administrative/Professional. For example, a Graduate Administrative/Professional might have responsibilities in the library, Office of the Dean of Students, Intercollegiate Athletics, ITaP, or one of the development offices that are unrelated to the instruction of students in a course. Assistant coaches should be classified as Graduate Administrative/Professionals. Graduate student staff who have academic counseling responsibilities should be classified, also, as Graduate Administrative/Professionals. Graduate Administrative/Professionals are permitted in academic areas, and many graduate students in VCS completing a combined residency / M.S. program are employed under this classification.
- 4. Graduate Research Assistant:** A Graduate Research Assistant performs duties related to a research project or program under the guidance and direction of specific faculty members. Any graduate student staff member who is assigned to perform research duties should be classified in the category, regardless of the funding source.

## 5. **Graduate Aide:** Graduate staff at Purdue's Calumet, Fort Wayne, and North Central campuses

Assistantships are designed to allow graduate students to obtain income and valuable professional experience, to enhance the University's efforts in teaching and research, and to make certain that the balance between work and study is appropriate. Employment is subject to the availability of funds.

Assistantships provide a stipend for services that are typically unrelated to the student's thesis research. The monthly minimum amount for an assistantship is set annually by the Graduate School. Assistantships are 0.25, 0.50, 0.75, or 1.0 Full Time Equivalent (FTE) increments and graduate tuition fees are waived for graduate students with at least a 0.25 FTE appointment. Graduate students receiving an assistantship must be registered for at least three credit hours of graduate-level course or research work during the fall and spring semesters and for at least one of the summer semesters for the entire appointment period and are required to pay University activity fees (contact VCS office for specific information). Graduate students on a 0.50 FTE appointment or higher for at least one semester are eligible for participation in the University-subsidized Graduate Student Staff Health Plan. Graduate students enrolled full-time (8 or more hours in Fall and Spring semesters, six or more hours in the summer semester) who have paid their tuition and fees are eligible to receive many Purdue University Student Health (PUSH) services at no additional charge. International students are limited by law to working a total of 20 hours (i.e. 0.5 FTE) per week for fall and spring semesters. The Graduate Student Employment Manual should be consulted for more detailed information.

Talented and productive graduate students may also be eligible for university fellowships (<http://www.gradschool.purdue.edu/funding>). The purpose of fellowships is to recognize outstanding graduate students and to support their education. The Graduate Student Employment Manual should be consulted for detailed information:

[www.gradschool.purdue.edu/downloads/Graduate\\_Student\\_Employment\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_Student_Employment_Manual.pdf)

In general, Purdue employees may not engage in outside employment and receive remuneration for other outside activities that would conflict with their University duties. Such outside activities include: connections with businesses, public offices, professional associations, educational institutions, and foundations. All outside activities should be reported annually on [Form 32A](http://www.vet.purdue.edu/secure/vcs/bo/33_Absence%20June2010blank.xls) [http://www.vet.purdue.edu/secure/vcs/bo/33\\_Absence%20June2010blank.xls](http://www.vet.purdue.edu/secure/vcs/bo/33_Absence%20June2010blank.xls).

### **Admission requirements**

The GPC is responsible for recommending approval or disapproval of graduate student applications. In addition to the specific requirements outlined below, the GPC may request additional requirements such as additional test scores or documentation for an individual applicant prior to admission.

The VCS Department requires applicants without a post-baccalaureate or professional degree to provide GRE test scores from within the previous 5 years.

### ***M.S. degree (non-thesis or thesis)***

Admission requirements to the M.S. non-thesis or thesis degree graduate program include a Doctor of Veterinary Medicine (D.V.M.) degree or equivalent, or an appropriate undergraduate degree, and a minimum grade point average of 3.0 (based on 4.0 = A). Admission averages are computed from the entire professional curriculum for those with a D.V.M. or equivalent degree, or from the undergraduate studies for those without the D.V.M. degree. Applicants with a grade point average below 3.0 may be considered for admission on conditional status on the basis of individual merit. Students admitted on conditional status generally have one semester to change their status to unconditional. Applicants with a graduate degree, and applicants that have completed some graduate course work, will be evaluated on the basis of their graduate work as well as their undergraduate or professional record.

### ***Ph.D. degree***

Admission requirements to the Ph.D. degree graduate program include a Doctor of Veterinary Medicine (D.V.M.) degree or equivalent, a M.S. degree or equivalent, or a Bachelor of Science (B.S.) or Bachelor of Arts (B.A.) degree or their equivalent, and a minimum grade point average of 3.0 (based on 4.0 = A). Admission averages are computed from the last degree. Applicants with a grade point average below 3.0 may be considered for admission on conditional status on the basis of individual merit. Students admitted on conditional status generally have one semester to change their status to unconditional. Students seeking to transfer from other graduate programs will be judged on the basis of past undergraduate and graduate performance.

### **Administrative Structure**

The head of the department of VCS is the head of the VCS graduate program. The department head reviews the Graduate Program Committee appointments annually at the start of the academic year. The department head also appoints the chair of the committee for a 3 year term. The committee is advisory to the department head who ultimately has authority regarding the graduate program.

The Graduate Program Committee consists of 6 VCS faculty (one of who serves as chair) and 1 VCS graduate student. Faculty members of the committee serve 3-year terms which are staggered so that two new members are appointed annually. All faculty members of the committee must be tenured or tenure-track faculty with graduate faculty status. The chair of the committee must hold a Ph.D. degree (or equivalent), at least 3 faculty members of the committee must have a Ph.D. degree (or equivalent), and at least 4 faculty members of the committee must have a Ph.D. or thesis M.S. degree (or equivalent). The VCS graduate student representative serves a 1-year term and must have completed at least 2 semesters of course work in their graduate program. Committee members may be reappointed. The final committee therefore consists of 6 appointed VCS faculty, 1 appointed VCS graduate student, and the Department Head (*ex officio*), with the 6 faculty and 1 graduate student having equal voting rights.

## **Graduate Program Committee (GPC) Responsibilities**

The responsibilities of the Graduate Program Committee are to:

- provide general guidance to the graduate program
- assist the VCS Department or individual VCS faculty in recruiting new graduate students
- make recommendations to the department head of VCS regarding admission of prospective students into the graduate program.
- provide guidance and counseling as needed for new graduate students before they have been assigned to a major professor
- provide general guidance or help in administering required examinations
- evaluate VCS graduate student progress on an annual basis, usually in December (see **Appendix 1**). This information should be forwarded to the department head by the end of December and graduate student progress will be discussed in faculty career development meetings. Based on the documentation and assessment of progress, the GPC should recommend to the department head whether students should be retained or dismissed from the graduate program.
- review the VCS annual report documenting the progress of doctoral students for the Graduate Council.
- prepare with assistance from the VCS office a report annually for the VCS department summarizing the status of the VCS graduate program. This report will be presented at a VCS faculty meeting at the start of each academic year and provide information, related to the previous fiscal year, of the following: (1) number of candidates that applied to open masters and doctoral positions; (2) number of graduate students that enrolled into masters and doctoral programs and the total number currently enrolled; (3) number of enrolled graduate students that left the graduate program and reason for leaving; and (4) number of graduate students that completed programs (with degree).
- protect the interests of both the graduate student and the institution and act as advocates for both.
- suggest new course offerings and review and recommend new graduate courses proposed by faculty i.e. act as the Graduate Courses and Curriculum Committee for the VCS department.
- recommend policy and procedural changes in the graduate program to VCS faculty.
- Conduct exit evaluations with graduating students or students departing the program.

### ***Procedure for evaluating applications to the graduate program***

The application will be evaluated separately by the Graduate Program Committee (GPC) of VCS and the Graduate School of Purdue University. Communications should be done electronically whenever possible.

Each GPC member will evaluate the applicant within 1 week of receiving a copy of the completed application and return a written decision to the committee chair. If returned responses are unanimous the application will be returned to the department head with the accompanying written decisions and a recommendation of approval or disapproval of the application. Under these circumstances the GPC will not formally meet. The committee will meet to discuss any

application where a unanimous decision was not reached in the returned individual evaluations and e-mail correspondence did not reach a consensus decision.

The GPC is responsible for recommending approval or disapproval of graduate student applications. Processed applications will then be sent to the department head at which time the section head and potential advisor of the graduate student applicant will be notified of the recommendation. Graduate faculty members who disagree with the decision of the GPC should discuss their reasons for disagreement with their section head or chair of the GPC. Following such discussions, the section head or potential advisor of the graduate student applicant can formally challenge the decision of the GPC by notifying the department head in writing, stating the reasons for disagreeing with the decision of the GPC. Interested parties have one week from receipt of the notice to formally challenge the decisions of the GPC. The final decision will then be made by the department head, who will subsequently inform the GPC of the final disposition of the application.

Recommendations of the GPC and Graduate School will be forwarded to the department head of VCS, who will then ensure that the application, the *Application Transmittal Checklist (G.S. Form 26)*, official transcripts, and proof of degree is submitted to the Graduate School for final approval. The department head will also notify the applicant. The Notice of Admission will specify whether unconditional admission or conditional admission has been approved. Students who do not meet one or more of the minimum requirements for admission may be admitted on conditional status. The most common reason for conditional status admission is a grade point average below 3.0 (A = 4.0); such students must maintain a grade point average above 3.0 to continue past the first semester. Other conditional status conditions include missing academic transcripts that must be submitted or English language proficiency that must be demonstrated (see Graduate School web site: <http://www.gradschool.purdue.edu/admissions/>).

In cases where an applicant is considered acceptable for admission to the graduate program with a conditional status, the GPC may identify areas of deficiency and recommend courses (and possibly grade requirements) that would correct the deficiency. If the department head is in agreement, the department head can either:

- a. Specify courses which must be completed with specified minimum grade to remove the student from conditional status, or
- b. Identify only required course areas, and provide the Graduate Student Committee the responsibility for selecting the courses.

Immediately upon enrollment of a student with conditional status the department head should, after consultation with the student's advisor, appoint an Advisory Committee. The department head will communicate to the Advisory Committee the conditions for removal of conditional status. The Advisory Committee will report to the department head the student's progress towards removal of the conditional status designation. The department head will decide when the conditions for removal of conditional status have been satisfied. After a student on conditional status has satisfied the conditions imposed, the VCS department head will request that the Graduate School adjust the student's graduate admission status from conditional to

unconditional. No advanced degree will be awarded to a student who has not qualified for, and been granted, unconditional status.

Copies of material pertaining to information, review, and decisions on admissions and similar correspondence with prospective applicants will be kept on file for 1 year in the VCS department office.

### **Graduate Student Responsibilities**

The quality and success of the graduate student's program is ultimately the responsibility of the student and depends primarily on the energy, talent, and intellectual motivation that the student applies to their education.

- a. It is the applicant's responsibility to ensure that all required portions of the application have been received by the VCS department and the Purdue University Graduate School.
- b. Students are expected to be familiar with and adhere to the University procedure and policies as described in the Graduate School Student Employment Manual ([www.gradschool.purdue.edu/downloads/Graduate\\_Student\\_Employment\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_Student_Employment_Manual.pdf))
- c. It is the student's responsibility, upon prior consultation and with the assistance of their advisor, to schedule meetings of their Advisory Committee at intervals mandated by the VCS department, and more frequently if needed.
- d. The student should provide an updated checklist for the M.S. degree (non-thesis or thesis; **Appendix 2**) or Ph.D. degree (**Appendix 3**) at each Advisory Committee meeting.
- e. The student must discuss all proposed courses and course changes with their advisor before on-line registration, and notify the Advisory Committee of any changes in course registration.
- f. The student must complete all course work, examinations and other degree requirements in a timely fashion.
- g. The student will initiate petitions to the appropriate committee or administrative official, when indicated.
- h. The student must conduct research and scholarly activities in an ethical manner.
- i. It is the student's responsibility to request transfer of credits from previous programs or universities.
- j. The student must ensure that their thesis or dissertation is presented in final draft form to members of the Advisory Committee and the department head (or designated representative) by the date agreed upon with the advisor, and not less than two weeks before the scheduled final examination.

Failure of the student to meet their responsibilities in the shared student/advisor relationship or to satisfy the requirements of the VCS department may be grounds for dismissal.

Residents and graduate students (with a Purdue University appointment) may occasionally be allowed to engage in outside activity. In order for this to happen, the request must first have the support of the student's major professor/advisor and their advisory committee. The proposed activity must be scheduled during non-working hours and be seen to enhance the educational program of the student and to not interfere with timely and satisfactory progress in their program. The student also must file a Form 32A and obtain approval by the Department Head, Dean of the School, and President of the University prior to engaging in outside activities. Students must be properly licensed to practice for the proposed activity and they will need to arrange for their own professional liability insurance coverage. Residents and graduate students will not be allowed to engage in outside activities (act as a consultant) in the specialty field of their ongoing training. (Excerpt from SVM Administrative Document #37)

### **Major Professor (Advisor) Responsibilities**

The major professor (advisor) and the graduate student constitute the fundamental unit of graduate education. The quality of graduate work depends upon their relationship and scholarly attitude. **Appendix 4** (*Guiding Standards for Advising and Mentoring Graduate Students at Purdue University*) describes the standards to which all members of the graduate faculty should aspire.

The major professor (advisor) shall have the following responsibilities:

- a. To meet with the student before he/she begins course work to assist in orientation of the student and in planning the student's tentative course program.
- b. To discuss with the student, and recommend to the department head, the names of faculty members to be appointed to the Advisory Committee, according to guidelines for the VCS and Purdue University Graduate School M.S. (non-thesis and thesis) and Ph.D. programs.
- c. To assist the student in arranging meetings of the appropriate Advisory Committee to assess the student's progress.
- d. To guide thesis research of students for whom they serve as advisor, both in content and timeliness. Informal assignment by the advisor of responsibility for guidance of thesis research to another member of the VCS faculty should be avoided. If it is apparent that such reassignment of responsibility is in the best interests of the student, a formal request for change in advisor should be considered, and directed to the department head.
- e. To read and revise draft forms of the thesis and scholarly manuscripts in a timely fashion.

## **Advisory Committee Responsibilities**

Advisory Committees usually serve as the Examination Committee for students undertaking the M.S. (thesis) or Ph.D. degrees. Advisory Committees have the following responsibilities:

1. To assist the major professor (advisor) in graduate student orientation and planning the student's program of course work.
2. To meet with the major professor and graduate student at intervals mandated by the VCS department and the Purdue University Graduate School (and more frequently if needed) to assess the student's progress at least annually. A copy of the Evaluation of Academic Progress (see **Appendix 1**) should be filed in the VCS department office within 2 weeks of this meeting.
3. To approve the proposed research project(s) (thesis M.S. and Ph.D. degrees) for completion within an agreed time frame.
4. To formally examine the student in written or oral form as required for conferment (thesis M.S. and Ph.D. degrees)
5. To read and revise the final form of the thesis (thesis M.S. and Ph.D. degrees) in a timely fashion.

## ***Procedures for Review of Academic Progress***

The GPC will meet at least once during the academic year (usually late in the Fall semester) for the purpose of a formal review of academic progress of all graduate students in the department. A recommendation of satisfactory progress is usually based on 2 to 3 years for completion of the M.S. degree (non-thesis and thesis) and 5 to 6 years for completion of the Ph.D. degree.

1. The student's Advisory Committee will forward a recommendation of satisfactory, needs improvement, or unsatisfactory to the GPC. If progress is determined to need improvement or be unsatisfactory, the GPC will recommend the conditions under which the student will be permitted to continue in the graduate program, or recommend a termination date if the student is not allowed to continue in the program. This recommendation will be forwarded to the student, major professor, other members of the Advisory Committee, and department head.
2. The department head may agree or disagree with the GPC, and following consultations with the student, the student's major professor, and the chair of the GPC, the department head's decision will be final.
3. The student, their major professor (advisor), Advisory Committee, and the GPC will be informed in writing of the department head's decision.

4. Students have the right to appeal within 30 days following notification of the decision of the department head.

The chair of the GPC is available for discussions of any issues related to the student's graduate program. Such discussions are confidential.

**Graduate student support resources:**

Any member of the GPC is available to discuss any concern that a VCS graduate student may have on any aspect of their program. The Peer Ombudsman Office was created to serve as a resource for graduate students to receive peer feedback on any issues related to graduate education at Purdue. There are three Peer Ombudsmen that regularly meet with students to discuss a host of topics including relationship issues with major professors, sources of funding and adequate housing options. The Peer Ombudsmen are neutral persons that will listen, provide information, offer options, seek explanations, make referrals, and advise regarding rights and responsibilities. If you would like to share, and perhaps, make better a concern that you have about your graduate education, please contact the Peer Ombudsmen through the Graduate School website (<http://www.gradschool.purdue.edu/ombuds>).

GradShare is a free online resource to help you make the most of the graduate school experience by offering expert advice and peer discussions pertaining to topics such as: Dissertation Development, Teaching, Financial Aid/Grants, Work-Life Balance, Research, Career Development. To learn more about GradShare visit the site at <http://www.GradShare.com>.

It is the responsibility of the graduate student to initiate contact or voice any concern to the GPC committee or the Peer Ombudsman Office.

## THE M.S. DEGREE (non-thesis)

To obtain the Master of Science (M.S.) non-thesis degree in the VCS department, the candidate must fulfill all requirements of the Graduate School and department. The Graduate School requirements are stated in the *Policies and Procedures for Administering Graduate Student Programs* and are available online

[www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf).

The departmental requirements are: demonstrated ability to: (1) understand the scientific method, (2) think critically and creatively about problems in their field of study; (3) effectively communicate in their field of study, and (4) conduct their activities in an ethical and responsible manner. These requirements are met, in part, by completion of required course work. Training in teaching is considered to be part of graduate education and the student will participate in the teaching program; however, the extent of participation will be determined for each graduate student.

### **Minimum Requirements for the M.S. non-thesis Degree**

The credit requirements for the M.S. non-thesis degree are in accordance with those of the Graduate School. The minimum is **30 total credit hours of course work**, with credit being given for courses with a grade of C- or better. Full-time study is regarded as 8 credit hours during fall and spring semesters and 6 credit hours during summer semester, with 18 credit hours being the maximum course work load in fall and spring semesters. Students must register for a minimum of 6 credits in the Fall and Spring semesters, and a minimum of 3 credits in the Summer semester in order to maintain part-time graduate student status. This represents a minimum of 30 credit hours for a 2-year program and 45 credits for a 3-year program. International graduate students must be registered for 8 credit hours during fall and spring semesters in order to fulfill the immigration requirement of full-time graduate student status (6 credit hours if receiving a 0.50 FTE assistantship). Graduate students who are non-native speakers of English must demonstrate minimum writing proficiency in English. The TOEFL or IELTS score will be used in determining whether to enroll the student in ENGL 62100 (Written Communication for International Graduate Students).

Course work requirements must be met, under normal circumstances, within five years of being admitted to the Graduate School. Research credits cannot be used to meet course work requirements. Graduate courses taken as pass/not pass or satisfactory/unsatisfactory cannot be used to meet course work requirements. A current listing of courses approved to be offered at all Purdue campuses is maintained by the Office of the Registrar (click link "Search the Course Catalog" on following web site: <https://mypurdue.purdue.edu/cp/home/loginf>).

Course work must be appropriate to meet the needs of the student in his or her chosen field, as determined by the advisory committee and approved by the head of the department, the dean of the School of Veterinary Medicine, and the dean of the Graduate School. The plan of study should include a primary area of study (e.g. Large Animal Medicine) and may include a related area or areas that are chosen on the basis of the student's interests and needs. The Graduate School regards the plan of study as an individualized curriculum designed by the advisory

committee to assist the student in achieving his or her educational objectives. Changes in the plan of study must be accompanied by a brief rationale in the space provided on the form.

Specific departmental course work requirements are:

- At least 3 semesters of VCS 62000 – Seminar in Clinical Medicine and Surgery (1 cr./sem. when a seminar is given): Seminars provide a forum for faculty and graduate students to discuss current concepts and research results in clinical medicine and surgery, and other aspects of veterinary medicine.
- Two semesters/year of VCS 63000 – Current topics in Veterinary Clinical Sciences: One-two hour sessions organized and conducted weekly by VCS residents, with input/discussion from the attending VCS faculty. Alternating weekly topic sessions may include journal club and morbidity and mortality patient rounds or other topics appropriate to the specialty.
- VCS60300 – Introduction to clinical research, trials and translational research (1 cr.)
- VCS 60400 – Animal models in translational research” (Graduate Council approval pending; 1 cr.)
- One biostatistics course such as CPB 62500 – Clinical biostatistics (2 cr.), CPB 62300 – Microcomputer applications in clinical and biomedical research (3 cr.), STAT 50300 – Statistical methods for biology (3 cr.) or STAT 51400 – Design of experiments (3 cr.)
- Complete the online research ethics training available through the Collaborative Institutional Training Initiative program (<https://www.citiprogram.org>) during the first semester of study.

We strongly recommend that graduate students take a course / workshop in technical writing such as: VCS Scientific writing workshop; Graduate School workshops (“How to publish in academic journals”).

To maintain good standing in the graduate program a student must have a cumulative grade point average of at least 3.0 (A = 4.0). The student is also expected to earn S grades for research registration.

### **Major Professor (Advisor) and Advisory Committee**

For graduate students completing a combined clinical residency and graduate degree program, the appropriate section head will be assigned as their temporary advisor immediately upon commencement of clinical duties. In consultation with the resident/graduate student, the faculty will then select a major professor (advisor), who will be a faculty member in their clinical service unit and has graduate faculty status; the major professor can be another faculty member in VCS if none of the faculty in the clinical service unit is member of the Graduate Faculty. Members of the Graduate Faculty are tenure-track faculty members at Purdue University who have been nominated by the head of the graduate program and the dean of the SVM for appointment to the Graduate Faculty. Generally, clinical faculty may serve on graduate

committees but may not serve as the major professor. Under these circumstances, clinical faculty may be appointed as “special” graduate faculty members (see *Policies and Procedures for Administering Graduate Student Programs*, Section I, page 6 available online at: [www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf)). Selection of an advisor must be done within 6 months of starting the program.

The major professor is responsible for supervising the student’s graduate program. The student and the major professor will select the Advisory Committee, which will contain a minimum of 3 people (including the major professor), and the Advisory Committee must be appointed before submission of the Plan of Study. At least 3 members, as well as the majority (51%), of the Advisory Committee must be members of the Graduate Faculty. Members of the advisory committee should be faculty who can provide help, guidance and support for the student with reference to the individual area of research. The Advisory Committee and the student must submit a plan of study no later than 8 weeks after the beginning of the second semester of study. The plan of study may be amended as required after initial approval. Subsequently, the Advisory Committee must meet with the student at least once per year. The student’s classification will be changed from Class M (Master’s Student) to Class B (Master’s Candidate) once the plan of study for the M.S. degree is approved by the Advisory Committee, Chair of the Graduate Program, Department Head, and Dean of the Graduate School.

### **Examination**

A final examination is not required for the M.S. non-thesis degree.

## THE M.S. DEGREE (thesis)

To obtain the Master of Science (M.S.) thesis degree in the VCS department, the candidate must fulfill all requirements of the Graduate School and department and pass the final M.S. examination. The Graduate School requirements are stated in the *Policies and Procedures for Administering Graduate Student Programs* and are available online [www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf).

The departmental requirements are demonstrated ability to: (1) understand and apply the scientific method; 2) effectively communicate in their field of study; (3) think critically and creatively about problems in their field of study; (4) conduct their activities in an ethical and responsible manner; and (5) conduct research using the abilities described above. These requirements are met, in part, by completing required course work and conducting research activities. Training in teaching is considered to be part of graduate education and the student will participate in the teaching program; however, the extent of participation will be determined for each graduate student.

### **Minimum Requirements for the M.S. thesis Degree**

The credit requirements for the M.S. thesis degree are in accordance with those of the Graduate School. The minimum is **30 total credit hours**, with credit being given for courses with a grade of C- or better. Fewer than 30 credit hours of course work may be listed on the plan of study for a thesis option M.S. degree, providing there is a total of at least 30 hours of course work and research credits. Full-time study is regarded as 8 credit hours during fall and spring semesters and 6 credit hours during summer semester, with 18 credit hours being the maximum course work load in fall and spring semesters. Students must register for a minimum of 6 credits in the Fall and Spring semesters, and a minimum of 3 credits in the Summer semester in order to maintain part-time graduate student status. International graduate students must be registered for 8 credit hours during fall and spring semesters in order to fulfill the immigration requirement of full-time graduate student status (6 credit hours if on a graduate staff appointment). Graduate students who are non-native speakers of English must demonstrate minimum writing proficiency in English. The TOEFL or IELTS score will be used in determining whether to enroll the student in ENGL 62100 (Written Communication for International Graduate Students).

A minimum of **15 credit hours of course work is required**. Course work requirements must be met, under normal circumstances, within five years of being admitted to the Graduate School. Research credits cannot be used to meet course work requirements. Graduate courses taken as pass/not pass or satisfactory/unsatisfactory cannot be used to meet course work requirements. A current listing of courses approved to be offered at all Purdue campuses is maintained by the Office of the Registrar (click link "Search the Course Catalog" on following web site: <https://mypurdue.purdue.edu/cp/home/loginf>).

Course work must be appropriate to meet the needs of the student in his or her chosen field, as determined by the advisory committee and approved by the head of the department, the dean of the School of Veterinary Medicine, and the dean of the Graduate School. The plan of study should include a primary area of study (e.g. Large Animal Medicine) and may include a related

area or areas that are chosen on the basis of the student's interests and needs. The Graduate School regards the plan of study as an individualized curriculum designed by the advisory committee to assist the student in achieving his or her educational objectives. Changes in the plan of study must be accompanied by a brief rationale in the space provided on the form.

Specific departmental course work requirements are:

- At least 2 semesters of a seminar series, one of which must be VCS 620 (45-min presentation) and 2 research presentations / seminars such as: VCS 62000, CPB 69700, conference presentation, or other appropriate forum
- Two semesters/year of VCS 63000 – Current topics in Veterinary Clinical Sciences: One-two hour sessions organized and conducted weekly by VCS graduate students, with input/discussion from the attending VCS faculty. Alternating weekly topic sessions may include journal club and morbidity and mortality patient rounds or other topics appropriate to the specialty.
- VCS60300 – Introduction to clinical research, trials and translational research (1 cr.)
- VCS 60400 – Animal models in translational research” (Graduate Council approval pending; 1 cr.)
  
- One biostatistics course such as CPB 62500 – Clinical biostatistics (2 cr.), CPB 62300 – Microcomputer applications in clinical and biomedical research (3 cr.), STAT 50300 – Statistical methods for biology (3 cr.), or STAT 51400 – Design of experiments (3 cr.)
- At least one course in the responsible conduct of research before thesis defense, such as:
  - CPB 61800 – Ethical issues in biomedical research (2 credits)
  - GRAD 61200 Responsible conduct of research (1 credit)
  - PSY 46400 – Responsible conduct of scientific research (3 credits);
  - Graduate students are also encouraged to participate in Grad School workshops/seminars: RCR series for students in Life Sciences (on-line modules; <http://www.gradschool.purdue.edu/RCR/>).
- Public seminar related to thesis defense.

We strongly recommend that graduate students take a course / workshop in technical writing such as: VCS Scientific writing workshop; Graduate School workshops (“How to publish in academic journals”).

A course in teaching is recommended but not required. To maintain good standing in the graduate program a student must have a cumulative grade point average of at least 3.0 (A = 4.0). The student is also expected to earn S grades for research registration.

### **M.S. thesis requirements**

The thesis must be original and include at least one paper written in a format suitable for publication in a peer-reviewed scientific journal. The thesis must conform to the requirements of the Graduate School and the department. The Graduate School requirements for the thesis are stated in the *Policies and Procedures for Administering Graduate Student Programs* and A

*Manual for the Preparation of Graduate Theses*

([www.gradschool.purdue.edu/downloads/facstaff/graduate-thesis-manual.pdf](http://www.gradschool.purdue.edu/downloads/facstaff/graduate-thesis-manual.pdf)). The departmental requirements for the thesis are as follows:

**Preliminary Pages:** The preliminary pages must include the Title Page, Table of Contents, List of Tables, List of Figures, and an Abstract.

**Text:** The text must contain at least 4 chapters. Chapter 1 is named Introduction, which is a brief ( $\leq 3$  page) introduction to the topic. Chapter 2 is named Literature Review, which is an in-depth review of the topic. Chapter 3 (and any additional chapters) describes the original research conducted by the candidate. The final chapter is named Conclusions, which is a brief ( $\leq 3$  page) summary of the findings and their significance within the research area. The final chapter should also include suggested areas for future research of the topic. Because it is strongly encouraged that parts of the thesis be published in an appropriate journal, Chapters 2 and 3 (and any additional chapters) should be organized in a style suitable for publication in a scientific journal. Formatting of the chapters should follow the style of the *Journal of the American Veterinary Medical Association* (default format) or scientific journal selected for publication of the manuscript. The reference list for each chapter should start on a new page after the article.

**Reference Section:** References should be cited in a consistent style throughout the thesis. It is preferable that all references be described in a Bibliography, which is the summary of source material at the end of the thesis. Alternatively, references may be given at the end of each chapter instead of at the end of the thesis, in which case the heading should be List of References or Literature Cited instead of Bibliography.

**Appendices:** Serious consideration should be given to including additional supporting material in an appendix or series of appendices at the end of the thesis.

The VCS department is not financially responsible for the typing or printing of the thesis, and VCS staff is not permitted to assist you with your thesis during regular business hours.

Following a successful final defense examination, the complete and corrected deposit copy of the thesis, including the completed *Thesis Acceptance (G.S. Form 9)*, must be delivered to the Thesis/Dissertation Office on or before the last day of classes of the session in which the student is to graduate.

### **Major Professor (Advisor) and Advisory Committee**

For graduate students completing a combined clinical residency and graduate degree program, the appropriate section head will be assigned as their temporary advisor immediately upon commencement of clinical duties. In consultation with the resident/graduate student, the faculty will then select an advisor, who is usually a faculty member in their clinical service unit and a graduate faculty; the major professor can be another faculty member in VCS if none of the faculty in the clinical service unit are members of the Graduate Faculty. Members of the Graduate Faculty are tenure-track faculty members at Purdue University who have been

nominated by the head of the graduate program and the dean of the SVM for appointment to the Graduate Faculty. Generally, clinical faculty may serve on graduate committees but may not serve as the major professor. Under these circumstances, clinical faculty may be appointed as “special” graduate faculty members (see *Policies and Procedures for Administering Graduate Student Programs*, Section I, page 6 available online at: [www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf)). Selection of an advisor must be done within 6 months of starting the program.

For graduate students completing a graduate degree without a clinical training program, the faculty member who agreed to be responsible for their graduate program will be assigned as major professor immediately upon commencement of graduate studies.

The major professor is responsible for supervising the student’s graduate program. The student and the major professor will select the Advisory Committee. The committee consists of the major professor and at least two other faculty members and must be appointed before submission of the Plan of Study. At least 3 members, as well as the majority (51%), of the Advisory Committee must have regular graduate faculty certification. It is strongly recommended that at least 1 member of the Advisory Committee should have a faculty appointment in a department outside VCS. Members of the Advisory Committee should be faculty who can provide help, guidance and support for the student with reference to the individual area of research. The Advisory Committee and the student must submit a plan of study no later than 8 weeks after the beginning of the second semester of study. Subsequently, the Advisory Committee must meet with the student at least once per year. The student’s classification will be changed from Class M (Master’s student) to Class B (Master’s candidate) once the plan of study for the M.S. degree is approved by the Advisory Committee, Chair of the Graduate Program, Department Head, and Dean of the Graduate School.

The student must present a written plan of research which contains specific aims, background and significance, research design and methods including statistical analysis and power analysis (if indicated), and potential problems to be encountered. The format should follow guidelines for the NIH R01 grant application. These guidelines can be found at: [http://grants.nih.gov/grants/writing\\_application.htm](http://grants.nih.gov/grants/writing_application.htm) (Writing your application / Developing your research plan). The plan of research must be at least 4 pages in length but no more than 15 pages and should be submitted no later than the third semester for the M.S. degree. Committee members will evaluate the plan of research using the rubric provided in Appendix 5.

The student must present an informal seminar of less than 45 minutes to their Advisory Committee before starting their thesis research; during the seminar the student should: (1) describe the problem and the significance of the research, (2) define the hypothesis or hypotheses to be tested, (3) describe the methodology, and (4) state the likely problems to be encountered. The plan of research must be sent to the advisory committee at least 1 week before the informal seminar. After the seminar the Advisory Committee will convey in writing to the graduate student that the proposed research project is sufficient for a M.S. thesis. The graduate student must notify and obtain the written approval of the Advisory Committee for any major changes in the proposed research project.

## **Examination**

The final examination will be scheduled with the approval of the student, the major professor (advisor), and all members of the Advisory Committee. A request for appointment of an examining committee (G.S. Form 8) must be received by the Graduate School at least 2 weeks before the proposed examination date. Final examination must be held before the last week of classes. The first draft of the thesis should be in the hands of the major professor (advisor) at least six weeks before the end of the semester in which the degree is to be conferred. A copy of the final draft of the thesis must be distributed to all members of the Advisory Committee and the department head (or their representative) at least 2 weeks before the examination. The final draft must bear the written approval of the professor who has directed the research. If the department head should find the thesis unsatisfactory, they should inform the student, the advisor, and the Advisory Committee before the final examination.

The final examination will consist of a 45 minute presentation of the dissertation in the form of a departmental seminar, which is open to the public. The seminar will be followed by an oral examination administered by the Advisory Committee in a closed session. The oral examination will focus on material related to the written thesis and presented during the departmental seminar. The oral examination will be chaired by the major professor. At the completion of the final examination, the committee chair should present the examination committee with a *Report of the Final Examination* (G.S. Form 11). The Advisory Committee must indicate, in the student's absence, approval or disapproval and sign the report form. The major professor shall submit a recommendation to the department head concerning the student's performance in the examination. If there is more than one dissenting vote, the examination is judged unsatisfactory. In the event of an unsatisfactory judgment, the Advisory Committee must decide whether the student will be permitted to take a second examination and the candidate must wait at least until the following session to repeat the final examination. If a second examination is held, the Advisory Committee must be the same as the original one, unless the department head approves substitution. The second examination must take place within 6 months of the first, and a second unsatisfactory judgment constitutes dismissal of the student from the VCS graduate program.

A GPC representative, appointed by the department head, shall attend all examinations for M.S. thesis degree candidates in the department. During the examination, the GPC representative may ask questions to the student and deliberate with the Advisory Committee. The GPC representative cannot vote in the final committee decision. The representative shall have the following responsibilities:

- a) To ensure that the student is treated fairly and that the examination meets departmental standards.
- b) To act as a resource for questions on graduate rules and protocols.
- c) To approve the format of the thesis.

After the final examination, each committee member will evaluate the candidate's presentation using the rubric provided in Appendix 6. The Advisory Committee will convey in writing to the graduate student if the student passed the final examination. After the examining committee meets, the student prepares a final copy of the thesis. That copy, called the "deposit" copy, incorporates all revisions requested by the members of the examining committee. A final copy of

the thesis should be provided in electronic form to the major professor, other members of the Advisory Committee, and department head.

**Exit survey**

The *Exit Questionnaire* must be completed and submitted before you can receive your thesis deposit receipt. To access the questionnaire, log on the myPurdue Web site located at <http://www.myPurdue.purdue.edu>.

## THE Ph.D. DEGREE

To obtain the Ph.D. degree in the VCS department, the candidate must fulfill all requirements of the Graduate School and the VCS Department. The Graduate School requirements are stated in the *Policies and Procedures for Administering Graduate Student Programs* and are available online:

[www.gradschool.purdue.edu/downloads/Graduate\\_School\\_Policies\\_and\\_Procedures\\_Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate_School_Policies_and_Procedures_Manual.pdf).

The departmental requirements are demonstrated ability to: (1) understand and apply the scientific method; (2) effectively communicate in their field of study; (3) think critically and creatively about problems in their field of study; (4) conduct their activities in an ethical and responsible manner; (5) plan and conduct original research using the abilities described above; and (6) engage in scholarship and other creative endeavors. These requirements are met, in part, by completion of required course work. Training in teaching is considered to be part of graduate education and the student will participate in the teaching program; however, the extent of participation will be determined for each graduate student. Every candidate for the Ph.D. in VCS is required to obtain a broad knowledge of basic science and a high degree of expertise in their area of specialization.

The total elapsed time of a completed Ph.D. degree program at Purdue University, from admission to the completion of the final examination, shall be no more than eight calendar years. Extensions of this limitation may be granted by the dean of the Graduate School and/or the Graduate Council, upon recommendation and justification by the academic department, but may require reapproval of plans of study and/or retaking of preliminary examinations.

### **Minimum Requirements for the Ph.D. Degree**

The credit requirements for the Ph.D. degree are in accordance with those of the Graduate School. The **minimum is 90 credit hours**, with credit being given for courses with a grade of C- or better. A master's degree or DVM degree (or equivalent) from any accredited institution may be considered to contribute up to **30 credit hours** toward satisfying the credit hour requirement at the discretion of the Graduate Program Committee. Full-time study is regarded as 8 credit hours during fall and spring semesters and 6 credit hours during summer semester, with 18 credit hours being the maximum course work load in fall and spring semesters and 9 credits being the maximum course work load during summer session. Students must register for a minimum of 6 credits in the Fall and Spring semesters, and a minimum of 3 credits in the Summer semester in order to maintain part-time graduate student status. International graduate students must be registered for 8 credit hours during fall and spring semesters in order to fulfill the immigration requirement of full-time graduate student status (6 credit hours if receiving a 0.50 FTE assistantship). Graduate students who are non-native speakers of English must demonstrate minimum writing proficiency in English. The TOEFL or IELTS score will be used in determining whether to enroll the student in ENGL 62100 (Written Communication for International Graduate Students).

A minimum of **15 credit hours of course work is required**. Course work requirements must be met, under normal circumstances, within five years of being admitted to the Graduate School.

Graduate courses taken as pass/not pass or satisfactory/unsatisfactory cannot be used to meet course work requirements. Research credits cannot be used to meet course work requirements. A current listing of courses approved to be offered at all Purdue campuses is maintained by the Office of the Registrar (click link “Search the Course Catalog” on following web site: <https://mypurdue.purdue.edu/cp/home/loginf>).

Course work must be appropriate to meet the needs of the student in his or her chosen field, as determined by the advisory committee and approved by the head of the department, the dean of the School of Veterinary Medicine, and the dean of the Graduate School. The plan of study should include a primary area of study (e.g. Large Animal Medicine) and may include a related area or areas that are chosen on the basis of the student’s interests and needs. The Graduate School regards the plan of study as an individualized curriculum designed by the advisory committee to assist the student in achieving his or her educational objectives. Changes in the plan of study must be accompanied by a brief rationale in the space provided on the form.

Specific departmental course work requirements are:

- At least 2 semesters of a seminar series and 2 research presentations / seminars such as: VCS 62000, CPB 69700, conference presentation, or other appropriate forum
- At least two biostatistics courses such as: CPB 62500 – Clinical biostatistics (2 cr.), CPB 62300 – Microcomputer applications in clinical and biomedical research (3 cr.), STAT 50300 – Statistical methods for biology (3 cr.), STAT 51400 – Design of experiments (3 cr.)
- VCS60300 – Introduction to clinical research, trials and translational research (1 cr.)
- VCS 60400 – Animal models in translational research” (Graduate Council approval pending; 1 cr.)
- **At least two courses that are foundational to the area of research (total minimum of 6 credit hours) as agreed by the graduate student advisory committee**
- At least one course in the responsible conduct of research before the preliminary examination, such as:
  - CPB 61800 – Ethical issues in biomedical research (2 credits)
  - GRAD 61200 – Responsible conduct in research (1 credit)
  - PSY46400 – Responsible conduct of scientific research (3 credits).
  - Graduate students are also encouraged to participate in workshops/seminars sponsored by the Graduate School (RCR series for students in Life Sciences; <http://www.gradschool.purdue.edu/RCR/>)
- At least one course / workshop in grant writing such as:
  - HORT 60300 Grants and grantsmanship (1 cr.)
  - MCMP 62500 Grant writing (1 cr.)
  - Workshops sponsored by the Graduate School.
- Public seminar related to thesis defense.

We strongly recommend that graduate students take a course / workshop in technical writing such as: VCS Scientific writing workshop; Graduate School workshops (“How to publish in academic journals”).

A course in teaching is recommended but not required. To maintain good standing in the graduate program a student must have a cumulative grade point average of at least 3.0 (A = 4.0). The student is also expected to earn S grades for research registration.

#### **Ph.D. dissertation (hereafter referred to as thesis) requirements**

The thesis must be original and include at least one paper written in a format suitable for publication in a peer-reviewed scientific journal; however, if the student’s advisory committee determines that sufficient work has been performed to meet the requirements for awarding of the PhD degree, but there is insufficient data for publication in a peer-reviewed scientific journal, then this requirement may be waived. The thesis must conform to the requirements of the Graduate School and the department. The Graduate School requirements for the thesis are stated in the *Policies and Procedures for Administering Graduate Student Programs* and *A Manual for the Preparation of Graduate Theses* ([www.gradschool.purdue.edu/downloads/facstaff/graduate-thesis-manual.pdf](http://www.gradschool.purdue.edu/downloads/facstaff/graduate-thesis-manual.pdf)). The departmental requirements for the thesis are as follows:

**Preliminary Pages:** The preliminary pages must include the Title Page, Table of Contents, List of Tables, List of Figures, and an Abstract. Additional pages which may be added at the discretion of the student include a Dedication, Acknowledgements, and List of Abbreviations and Acronyms.

**Text:** The text must contain at least 5 chapters. Chapter 1 should be titled “Introduction”, and is a brief ( $\leq 3$  page) introduction to the topic. Chapter 2 is titled “Literature Review”, and is an in-depth review of the topic being investigated, including a thorough exploration of supportive and conflicting previously published literature. Chapters 3 and 4 (and any additional chapters) describe the original research conducted by the candidate. These chapters should follow the format of a scientific journal manuscript (i.e. brief introduction, materials and methods, results, and discussion). The final chapter is titled “Conclusions”, and is a brief ( $\leq 3$  page) summary of the novel findings reported in the thesis and their relevance and significance within the framework of the prevailing understanding of the topic. This final chapter should also include suggested areas for future research of the topic. Because it is strongly encouraged that parts of the thesis be published in an appropriate journal, Chapters 2, 3, and 4 (and any additional chapters) may be organized in a style suitable for publication in the *Journal of the American Veterinary Medical Association* (default format) or scientific journal selected for publication of the manuscript.

Reference Section: References must be cited in a consistent style throughout the thesis. It is preferable that all references be described in a single Bibliography, which is the summary of source material at the end of the thesis. Alternatively, references may be given at the end of each chapter instead of at the end of the thesis, in which case the reference list for each chapter should start on a new page and the heading should be List of References or Literature Cited instead of Bibliography.

Appendices: Additional supporting material should be included in an appendix or series of appendices at the end of the thesis. Example materials to include in an appendix include ancillary data produced by the student during their doctoral work which will not be included in a scientific journal publication, results of validation experiments for new techniques which are then applied to the novel work, or results produced by others in the laboratory which are critical for understanding the work reported by the student, but have not been published elsewhere in peer-reviewed journals.

Curriculum Vitae: The candidate's Vita should be included after the Appendices following the departmental format.

The VCS department is not financially responsible for the typing or printing of the thesis, and VCS staff is not permitted to assist you with preparation of your thesis during regular business hours.

### **Major Professor (Major Advisor) and Advisory Committee**

The Advisory Committee, in consultation with the major professor, has the responsibility for assisting the student in planning appropriate advanced course work to ensure that the student satisfies program requirements. The Advisory Committee should serve as the nucleus for the Preliminary Examination Committee and the Final Examination Committee. The Advisory Committee should be available to offer the student advice about choosing appropriate course work, preparation for the preliminary examination and the student's research program.

The major professor (advisor) must be a faculty member in VCS and a member of the graduate faculty. The major professor is responsible for supervising the student's graduate program. The student and the major professor are responsible for the selection of the Advisory Committee. The committee consists of the major professor and at least two other faculty members and must be appointed before submission of the Plan of Study. At least 3 members, as well as the majority (51 %), of the Advisory Committee must have regular graduate faculty certification. At least 1 member of the Advisory Committee must have a faculty appointment in a department outside VCS. The committee must be approved by the head of the graduate program, the school dean, and the dean of the Graduate School. The Advisory Committee and the student must submit a plan of study no later than 8 weeks after the beginning of the second semester of study. Subsequently, the Advisory Committee must meet with the student at least once per year. The student's classification will be changed from Class A (Doctoral Admittee) to Class C (Doctoral Student) once the plan of study for the Ph.D. degree is approved by the Advisory Committee, Department Head, and Graduate School.

## *Preliminary Examination*

A request for appointment of a preliminary examination committee must be received by the Graduate School at least 2 weeks before the proposed examination date. To become eligible to take the preliminary examination, the student must have filed a plan of study and satisfactorily completed most of the required course work. **The examination should be scheduled as early as possible in the program and must be completed at least two sessions (including summer session) before the date of the final examination.** Full-time doctoral students should take the preliminary examination by the end of their third year in the program.

Membership of the Preliminary Examination Committee is usually the same as that of the Advisory Committee, but additional members may be added if their expertise is required. The Preliminary Examination Committee has responsibility for helping the student define the research problem, helping solve technical or design problems, and administering the preliminary examination. The student's major professor (advisor) will serve as chair of the Preliminary Examination Committee. Any interested faculty may be present at the preliminary examination, without vote.

The objective of the preliminary examination is to evaluate the general knowledge and intellectual creativity of the student, and to define the plan of research. The preliminary examination has written and oral components and the examination format is determined by the committee. The student should ask each committee member to define, in broad terms, the scope of the examination. At least 1 week before the scheduled date of the preliminary examination, the student must present a written plan of research which contains specific aims, background and significance, research design and methods including statistical analysis and power analysis (if indicated), and potential problems to be encountered. The format should follow guidelines for the NIH R01 grant application. These guidelines can be found at: [http://grants.nih.gov/grants/writing\\_application.htm](http://grants.nih.gov/grants/writing_application.htm)

Follow links to "Writing your application / Developing your research plan". The plan of research must be at least 4 pages in length but no more than 15 pages and should be submitted no later than the fifth semester for the Ph.D. degree. Committee member will evaluate the plan of research using the rubric provided in Appendix 5. The preliminary examination starts by having the student present an informal seminar of less than 45 minutes to the Preliminary Examination Committee which may or may not be identical to the Advisory Committee; during the seminar the student should: (1) describe the problem and the significance of the research, (2) define the hypothesis or hypotheses to be tested, (3) describe the methodology, and (4) state the likely problems to be encountered.

A GPC representative, appointed by the department head, shall attend all preliminary examinations for Ph.D. degree candidates in the department. During the examination, the GPC representative may ask questions to the student and deliberate with the Advisory Committee. The GPC representative cannot vote in the final committee decision. The representative shall have the following responsibilities:

- a) to ensure that the student is treated fairly and that the examination meets departmental standards.
- b) to act as a resource for questions on graduate rules and protocols.

After the preliminary examination, each committee member will evaluate the candidate's presentation using the rubric provided in Appendix 7. The Advisory Committee will convey in writing to the graduate student if the student passed the preliminary examination and if the proposed research project is sufficient for a Ph.D. thesis or if it needs improvement. The graduate student must notify and obtain the written approval of the Advisory Committee for any major changes in the proposed research project.

### ***Final Examination***

A request for appointment of an examining committee must be received by the Graduate School at least 2 weeks before the proposed examination date. The committee consists of at least four members of the graduate faculty.

The doctoral candidate must provide each member of the Final Examination Committee and the department head (or their designated representative) a copy of the final draft of the thesis at least two weeks before the final examination. If the department head should find the thesis unsatisfactory, they should inform the student, the advisor, and the Final Examination Committee before the final examination. At the start of the final examination, the candidate is expected to give a 45 minute oral presentation of their dissertation research work as a public seminar to the VCS department. The candidate is expected to demonstrate scholarly knowledge in their field of research and the ability to respond with rational answers reflecting ample relevant knowledge to questions raised by the audience, and later that day, in a closed session, by members of the Final Examination Committee. Concerns and comments raised by the Final Examination Committee are generally expected to be incorporated into the thesis prior to final approval. The oral examination should not last more than two hours. If additional time is needed, the examination may be continued at a later date.

A GPC representative, appointed by the department head, shall attend all final examinations for Ph.D. degree candidates in the department. During the examination, the GPC representative may ask questions to the student and deliberate with the Advisory Committee. The GPC representative cannot vote in the final committee decision. The representative shall have the following responsibilities:

- a) to ensure that the student is treated fairly and that the examination meets departmental standards.
- b) to act as a resource for questions on graduate rules and protocols.
- c) to approve the format of the thesis.

After the final examination, each committee member will evaluate the candidate's presentation using the rubric provided in Appendix 8. The Advisory Committee will convey in writing to the graduate student if the student passed or failed the final examination. At the completion of the final examination, the committee chair should present the examination committee with a *Report of the Final Examination (G.S. Form 11)*, which is sent to the department by the Graduate School upon approval of the request for an examining committee. Each member of the examining committee must indicate approval or disapproval and sign the report form. No more than one dissenting vote is acceptable in certifying a candidate to receive the Ph.D. degree. After the examining committee meets, the student prepares a final copy of the thesis. That copy, called the "deposit" copy, incorporates all revisions requested by the members of the examining committee. The complete and corrected deposit copy of the thesis, including the completed *Thesis Acceptance (G.S. Form 9)*, must be delivered to the Thesis/Dissertation Office on or before the last day of classes of the session in which the student is to graduate. A final copy of the thesis should be provided in electronic form to the major professor, other members of the Advisory Committee, and department head.

### **Exit surveys**

The *Exit Questionnaire* and the *Survey of Earned Doctorates* must be completed and submitted before you can receive your thesis deposit receipt. To access the *Exit Questionnaire*, log on the myPurdue Web site located at <http://www.myPurdue.purdue.edu>. To complete the *Survey of Earned Doctorates* you must first register on-line: <http://survey.norc.org/doctorate>. You will then receive an e-mail at the address you provided with your PIN, password, and the URL to the Web survey.

# APPENDIX 1 Evaluation of Academic Progress

Graduate Program Committee  
 Department of Veterinary Clinical Sciences, Purdue University

Date: \_\_\_\_\_

## EVALUATION OF ACADEMIC PROGRESS (to be completed by Major Professor/Advisor)

Evaluations are due by Jan 15 and July 15 of each year. Please return to Jesse Sheely, VCS GPC Administrative Assistant in room 1352B and attach updated copy of the student's checklist for the M.S or Ph.D. degree and applicable rubrics.

\_\_\_\_\_  
 (Graduate Student's name: PRINT)

\_\_\_\_\_  
 (Major Professor's name: PRINT)

Graduate School date of admission  
 (month/day/year): \_\_\_\_\_

\_\_\_\_\_  
 (Major Professor's signature)

Degree Sought:      \_\_\_\_\_ Non-thesis MS      \_\_\_\_\_ Thesis MS      \_\_\_\_\_ PhD

Tentative thesis topic/title (if applicable): \_\_\_\_\_

Status of Plan of Study (POS):      \_\_\_\_\_ No POS      \_\_\_\_\_ Draft POS      \_\_\_\_\_ Saved POS

### PROGRESS TO DATE

Purdue POS (Cumulative) GPA:      /4.0

Dates the committee met      Examination dates:

1.      Preliminary:
2.      Final:

In the space below, please evaluate the student's progress in the program during the last calendar year ( ) with regard to course work, research, and any potential problems.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Graduate Student's comments:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 (Graduate Student's signature)

Overall evaluation of graduate student progress by Advisory Committee	
<b>Progress</b> (circle one): <div style="text-align: center; padding: 10px 0;">                 Satisfactory                  Needs Improvement                  Unsatisfactory             </div>	
Comments:	

Committee members present	Initials

## APPENDIX 2 (Thesis)

### Checklist for the M.S. Degree

It is the responsibility of the graduate student to keep this form current and to meet the requirements on time.

Date

- \_\_\_\_\_ 1. Admission to Graduate School.
- \_\_\_\_\_ 2. Appointment of the temporary advisor. The advisor must be appointed before starting graduate study. If the student has not selected a major professor before beginning the graduate program the department head will appoint a temporary advisor, who will usually be their section head.
- \_\_\_\_\_ 3. Start graduate program (start course work).
- \_\_\_\_\_ 4. Appointment of major professor. The major professor must be appointed within 6 months of starting the graduate program. The major professor is selected by the student, and usually is a faculty member in the service unit of the student. The major professor must be a member of VCS and the graduate faculty.
- \_\_\_\_\_ 5. Appointment of the Advisory Committee by the major professor with approval by the department head. The committee (comprising at least 3 members) must be appointed before submission of the Plan of Study. The majority of committee members must be members of the graduate faculty, and at least one member must hold a faculty appointment in VCS.
- \_\_\_\_\_ 6. Meet with the Advisory Committee before the start of the second semester of study to plan a tentative course program that must be filed with the VCS department office. Submit a plan of study no later than 8 weeks after the beginning of the second semester of study.
- \_\_\_\_\_ 7. Present a written plan of research and an informal seminar to the Advisory Committee before starting thesis work, and have the Advisory Committee agree, in writing, that the proposed research project is sufficient for a M.S. thesis.
- \_\_\_\_\_ 8. Complete the course work required for the M.S. degree.
  - \_\_\_\_\_ a. At least 30 credit hours total.
  - \_\_\_\_\_ b. At least 15 credit hours of course work.

- \_\_\_\_\_ c. Fulfilled all course work requirements.
  
- \_\_\_\_\_ 9. Present a first draft of the thesis (that conforms to Graduate School and VCS department requirements) to the advisor at least 6 weeks before the anticipated final examination date.
  
- \_\_\_\_\_ 10. Apply for graduation; consult the Graduate School calendar for deadlines.
  
- \_\_\_\_\_ 11. Schedule the final examination after consultation with the advisor and members of the Advisory Committee.
  
- \_\_\_\_\_ 12. Present the final draft of the thesis to the Advisory Committee and department head (or their designated representative) at least 2 weeks before the final examination.
  
- \_\_\_\_\_ 13. Present the VCS thesis defense seminar and take the final examination.
  
- \_\_\_\_\_ 14. After all revisions have been made to the thesis and it is in its final form, present the thesis to the chair of the Graduate Program Committee or their designated representative for a format check. Allow 1 week for corrections and departmental approval of your thesis.
  
- \_\_\_\_\_ 15. Present the thesis that has been approved by the Veterinary Clinical Sciences department to the Graduate School for final approval.

## APPENDIX 3

### Checklist for the Ph.D. Degree

It is the responsibility of the graduate student to keep this form current and to meet the requirements on time.

Date

- \_\_\_\_\_ 1. Admission to Graduate School.
- \_\_\_\_\_ 2. Appointment of the temporary advisor. The major professor must be appointed before starting graduate study. If the student has not selected major professor before beginning graduate work the department head will appoint a temporary advisor, who will usually be a senior faculty member in the student's service unit or the section head.
- \_\_\_\_\_ 3. Start graduate program (start course work).
- \_\_\_\_\_ 4. Appointment of major professor. The major professor must be appointed within 6 months of starting the graduate program. The major professor is selected by the student, and usually the major professor is a faculty member in the service unit of the student. The major professor must be a member of VCS and the graduate faculty.
- \_\_\_\_\_ 5. Appointment of the major professor with approval by the department head. The committee (comprising at least 3 members) must be appointed before submission of the Plan of Study. The majority of committee members must be members of the graduate faculty, and at least one member must hold a faculty appointment in VCS. The Advisory Committee must be appointed within 6 months of starting the program.
- \_\_\_\_\_ 6. Meet with the Advisory Committee before the start of the second semester of study to plan a tentative course program that must be filed with the VCS office. Submit a plan of study no later than 8 weeks after the beginning of the second semester of study.
- \_\_\_\_\_ 7. Complete the course work required for the Ph.D. degree.
  - \_\_\_\_\_ a. At least 90 credit hours total.
  - \_\_\_\_\_ b. At least 15 credit hours of course work.
  - \_\_\_\_\_ c. Fulfilled all course work requirements.

- \_\_\_\_\_ 8. Appointment of the Preliminary Examination Committee by the dean of the Graduate School. This committee is usually the same as the Advisory Committee.
- \_\_\_\_\_ 9. Present a written plan of research to the Advisory Committee at least 1 week before the scheduled date of the preliminary examination.
- \_\_\_\_\_ 10. Completion of the written and oral examination phase of the preliminary examination.
- \_\_\_\_\_ 11. Appointment of the Final Examination Committee by the dean of the Graduate School. This committee is usually the same as the Advisory Committee, except that it must contain at least 4 members of the Graduate School.
- \_\_\_\_\_ 12. Present the first draft of the thesis (that conforms to the Graduate School and VCS department requirements) to the advisor.
- \_\_\_\_\_ 13. Apply for graduation, consult the Graduate School calendar.
- \_\_\_\_\_ 14. Schedule the final examination after consultation with the advisor and members of the Final Examination Committee. A minimum of two semesters must elapse between completion of the preliminary examination and the final examination.
- \_\_\_\_\_ 15. Present the final draft of the thesis to the Final Examination Committee and department head (or their designated representative) at least two weeks before the final examination.
- \_\_\_\_\_ 16. Present the VCS thesis defense seminar and take the final examination.
- \_\_\_\_\_ 17. After all revisions have been made to the thesis and it is in its final form, present the thesis to the chair of the Graduate Program Committee (or their designated representative) for a format check. Allow one week for corrections and departmental approval of your thesis.
- \_\_\_\_\_ 18. Present the thesis that has been approved by the Veterinary Clinical Sciences department to the Graduate School for approval.

## APPENDIX 4

### **Guiding Standards for Advising and Mentoring Graduate Students at Purdue University**

**Graduate Council Document 04-D  
(Approved by the Graduate Council 3/25/04)**

#### ***Guiding Standards for Advising and Mentoring Graduate Students at Purdue University***

##### *Graduate Faculty and Students*

- The decision to advise a graduate student must be made carefully and thoughtfully. The graduate faculty advisor in all cases acts as the student's mentor, but in cases where students are pursuing research based masters and/or doctoral degrees, the graduate faculty advisor helps shape the student's values and understanding of research. Before agreeing to advise a student, the advisor and student should consider their mutual interests; the compatibility of their expectations, work habits, personalities; the career goals of the student and, in the case of a thesis based degree, their research goals.
- Graduate faculty should establish and communicate clear expectations regarding student commitment and effort dedicated to the student's graduate program.
- Graduate faculty members are responsible for all phases of graduate education and will be accessible to students who are under their guidance.
- Graduate faculty will foster the development of excellence in every graduate student and will be candid, fair, and committed to the welfare and progress of all graduate students.
- Graduate faculty will be objective in the evaluation of research and academic performance and will communicate their evaluations fully and honestly to their students. Graduate faculty will report accurately on the competence of students to other professionals who require such evaluations.

##### *Guiding Research*

- When a student pursues a research based graduate degree, the advisor's responsibility is to guide the student's first research experience and to understand and constructively critique the student's research accomplishments.
- Integrity in research is an essential part of Purdue University's intellectual and social structure, and adherence to its spirit and principles must be maintained. These principles include commitment to truth, objectivity, fairness, honesty, and free inquiry.
- The goal of research and scholarship is the discovery of knowledge.

### *Expectations*

- When engaged in teaching, research, or supervision, graduate faculty will recognize the implicit power and influence they hold and avoid engaging in conduct that exploits or demeans students or that could be construed as an abuse of that power.
- The graduate advisor has the responsibility to discuss career opportunities with the student throughout the student's graduate program, and often after the student has completed his or her immediate degree objective.
- Graduate faculty must not condone nor tolerate discrimination against any individual on the basis of race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability, or status as a disabled or Vietnam-era veteran.
- Graduate faculty will advise students concerning the ethics of the profession; encourage the practice of scholarship and publication; assist students in addressing ethical issues; and in the case of research based graduate degrees, of ethical and responsible conduct in research.
- Graduate faculty will strive to enhance the educational value of student assignments/ experiences as teaching and research assistants.
- Graduate faculty will not permit personal or intellectual differences with colleagues to impede student access to those colleagues or interfere with students' research or progress toward a degree objective.

### *Role Models*

- Graduate faculty have a responsibility to serve as an exemplar in recognizing and acknowledging the scholarly contributions of others; in providing complete and accurate records and reports of the results and conclusions of their research, scholarly, or artistic endeavors; and in preserving the integrity of the research record.
- Graduate faculty have a special obligation to exemplify the best qualities and highest standards of personal and professional conduct.

## APPENDIX 5

# M.S. / Ph.D. Research Proposal Rubric Evaluation

Student Name: \_\_\_\_\_

Form VCS\_GC-5

### M.S. & Ph.D. Dissertation Research Proposal Rubric Evaluation

Chair of Evaluation Committee: \_\_\_\_\_

Date of Proposal Review: \_\_\_\_\_

Research Proposal Title: \_\_\_\_\_

Rate: 1 = Does not meet expectations	5 = Exceeds expectations
1	> 5

Attribute	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations	Rate
-----------	----------------------------	--------------------	----------------------	------

#### Overall quality of science

Arguments	incorrect, incoherent, or flawed	coherent and clear	superior	1 2 3 4 5
Objectives	poorly defined	clear	well defined	1 2 3 4 5
Critical thinking skills	rudimentary	average skill	mature skill	1 2 3 4 5
Subject matter and associated literature	poor understanding	reflects understanding	master	1 2 3 4 5
Understanding of theoretical concepts	poor understanding	demonstrates understanding	master	1 2 3 4 5
Originality	limited	demonstrates originality	exceptional	1 2 3 4 5
Creativity and insight	limited	creative and insightful	exceptional	1 2 3 4 5
Success	little potential	good potential	excellent potential	1 2 3 4 5

#### Contribution to discipline

Discovery	limited potential	some potential	exceptional potential	1 2 3 4 5
Previous research	limited expansion	builds upon research	greatly extends research	1 2 3 4 5
Theoretical or applied significance	limited significance	reasonable significance	exceptional significance	1 2 3 4 5
Publication potential	limited potential	reasonable potential	exceptional potential	1 2 3 4 5

#### Quality of writing

Writing	weak	adequate	publication quality	1 2 3 4 5
Grammatical and spelling error	numerous errors apparent	some errors apparent	no errors apparent	1 2 3 4 5
Organization	poor	logical	excellent	1 2 3 4 5
Documentation	poor	adequate	excellent	1 2 3 4 5

#### Overall Assessment

Expectations	does not meet expectations	meets expectations	exceeds expectations	1 2 3 4 5
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**Confidential Comments ( may continue on back or second page):**

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

# APPENDIX 6

## M.S. Thesis & Defense Exam Rubric Evaluation

### M.S. Thesis & Defense Exam Rubric Evaluation

Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_

Thesis Title: \_\_\_\_\_

Evaluation/Guidance	Significant Improvement	Improvement	Acceptable	Very Good	Excellent
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing motivation for undertaking the research	1	2	3	4	5
2. <b>Literature and Previous Work:</b> Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem	1	2	3	4	5
3. <b>Impact of Proposed Research:</b> Demonstrates the potential value of solution to the research problem in advancing knowledge within the area of study	1	2	3	4	5
4. <b>Solution Plan:</b> Has applied sound state-of-the-field research methods/tools to solving the defined problem and has described the methods/tools effectively	1	2	3	4	5
5. <b>Results:</b> Analyzed and interpreted research results/data effectively	1	2	3	4	5
6. <b>Quality of Written and Oral Communication:</b> Communicates research proposal clearly and professionally in both (a) written form and (b) oral form	(a) 1	2	3	4	5
	(b) 1	2	3	4	5
7. <b>Quality of Response to Questions</b> completeness, organization of argument, subject area of study and expertise in the area	1	2	3	4	5
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study, and expertise in the area	1	2	3	4	5
9. <b>Broader Impact:</b> Demonstrates awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.	1	2	3	4	5
10. <b>Publications:</b> Journal or conference publications have resulted (or anticipated) from this research	1	2	3	4	5

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 –10 above.

CRITERIA	PERFORMANCE RATINGS				
	Does NOT PASS	Passes PRELIMINARY Exam			
OVERALL, my rating of the PERFORMANCE	Needs Significant Improvement	Improvement	Acceptable	Very Good	Excellent

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Please report additional comments on the backside of this page.**

# APPENDIX 7

## Written & Oral Preliminary Examination/Oral Proposal Presentation Rubric Evaluation for Ph.D. Candidacy

Candidate Name: \_\_\_\_\_ Date of Examination: \_\_\_\_\_

Chair of Evaluation Committee: \_\_\_\_\_

Proposed Dissertation Title: \_\_\_\_\_

Evaluation/Guidance		Needs Significant Improvement	Needs Improvement	Acceptable	Very Good	Excellent
1. <b>Problem Definition:</b> States the research problem clearly, providing motivation for undertaking the research		1	2	3	4	5
2. <b>Literature and Previous Work:</b> Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem		1	2	3	4	5
3. <b>Impact of Proposed Research:</b> Demonstrates the potential value of solution to the research problem in advancing knowledge within the area of study		1	2	3	4	5
4. <b>Solution Plan:</b> Provides a sound plan for applying state-of-the-field research methods/tools to solving the defined problem and shows a good understanding of how to use methods/tools effectively		1	2	3	4	5
5. <b>Expected Results:</b> Provides a sound plan for analyzing and interpreting research results/data		1	2	3	4	5
6. <b>Quality of Written and Oral Communication:</b> Communicates research findings clearly and professionally in both (a) <b>written</b> form and (b) <b>oral</b> form	(a)	1	2	3	4	5
	(b)	1	2	3	4	5
7. <b>Critical Thinking:</b> Demonstrates capability for independent research in the area of study, preparedness in core disciplines relevant to research, and ability to complete the proposed research		1	2	3	4	5
8. <b>Broader Impact:</b> Demonstrates awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.		1	2	3	4	5
9. <b>Breadth:</b> Demonstrates a basic knowledge reflective of the VCS required cores and how they connect with the specific research area.		1	2	3	4	5

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 9 above.

CRITERIA	PERFORMANCE RATINGS				
	Does NOT PASS	Passes PRELIMINARY Exam			
OVERALL, my rating of the PERFORMANCE (circle rating category)	Needs Significant Improvement	Needs Improvement	Acceptable	Very Good	Excellent

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Please report additional comments on the backside of this page.**

# APPENDIX 8

## Ph.D. Dissertation & Defense Exam Rubric Evaluation

### Ph.D Dissertation & Defense Exam Rubric Evaluation

Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_

Dissertation Title: \_\_\_\_\_

Evaluation/Guidance	Significant Improvement	Needs Improvement	Acceptable	Very Good	Excellent	
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing motivation for undertaking the research	1	2	3	4	5	
2. <b>Literature and Previous Work:</b> Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem	1	2	3	4	5	
3. <b>Impact of Proposed Research:</b> Demonstrates the potential value of solution to the research problem in advancing knowledge within the area of study	1	2	3	4	5	
4. <b>Solution Plan:</b> Has applied sound state-of-the-field research methods/tools to solving the defined problem and has described the methods/tools effectively	1	2	3	4	5	
5. <b>Results:</b> Analyzed and interpreted research results/data effectively	1	2	3	4	5	
6. <b>Quality of Written and Oral Communication:</b> Communicates research proposal clearly and professionally in both <b>(a) written</b> form and <b>(b) oral</b> form	<b>(a)</b>	1	2	3	4	5
	<b>(b)</b>	1	2	3	4	5
7. <b>Quality of Response to Questions</b> completeness, organization of argument, subject area of study and expertise in the area	1	2	3	4	5	
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study, and expertise in the area	1	2	3	4	5	
9. <b>Broader Impact:</b> Demonstrates awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.	1	2	3	4	5	
10. <b>Publications:</b> Journal or conference publications have resulted (or anticipated) from this research	1	2	3	4	5	

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 –10 above.

CRITERIA	PERFORMANCE RATINGS				
	Does NOT PASS	Passes PRELIMINARY Exam			
	Needs Significant Improvement	Needs Improvement	Acceptable	Very Good	Excellent
<b>OVERALL, my rating of the PERFORMANCE</b>					

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Please report additional comments on the backside of this page.**