

**Veterinary Sciences Graduate  
Studies Manual  
2016-2017**

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## **I. Introduction**

The VCS Graduate Manual supplements WSU Graduate School's Policies and Procedures (<https://gradschool.wsu.edu/policies-procedures/>). As a Veterinary Science graduate student, you should use this manual as an operational guide for the departmental and college graduate degree program. Any changes or exceptions in your program that deviate from the guidelines in this manual need to be described in writing and submitted by the student, through their major professor, for consideration and approval by the VCS Graduate Studies Committee.

The student should understand that failure to adhere to the policies and regulations of the Graduate Manual may result in premature termination of his/her appointment. The chair of the department may choose additional action affecting those who fail to comply with the contents of this manual.

The graduate program in the Department of Veterinary Clinical Sciences (VCS) at Washington State University is a plan of study that leads to either the master's or doctoral degree. The objectives of the program are to promote high standards of scholarly creativity, and independent and critical research.

All graduate students are required to complete "Responsible Conduct of Research" within the first semester of your graduate program. This is offered by the Office of Research and is accessed through the "My Research" portal (<https://myresearch.wsu.edu/>). Once you logon to the site, find the tab "Available Training" and under that tab the subsection "Research Compliance Office". Under that section you will find the Responsible Conduct of Research (RCR) link.

**WSU, CVM, and Veterinary Clinical Sciences are committed to providing equal opportunity in its services, programs, and employment for individuals with disabilities. Academically qualified students with disabilities are provided with access to the individualized assistance that is consistent with the student's needs and the essential requirements of the program or course of study in which the student is enrolled. Reasonable accommodations are available for students with a documented disability.**

## **II. Graduate Program Options**

### **Master of Science Program Objectives:**

1. Enable students to develop as successful professionals for highly competitive positions in academia, private specialty practice, industry and government.
2. Prepare students to be effective researchers (clinical, translational, and basic sciences)
3. Enhance the national and international visibility of graduate education, veterinary clinical training programs, and research at Washington State University, College of Veterinary Medicine, and Department of Veterinary Clinical Sciences.

### **Outcomes to meet Program Objectives:**

1. Enable students to develop as successful professionals for highly competitive positions in academia, private specialty practice, industry and government. The program provides a variety of experiences that help students to:
  - a. Develop broad expertise in appropriate concepts, theories, and emerging methods to effectively conduct research across the disciplines represented in Veterinary Clinical Sciences. To fully understand “health” and appropriate interventions at population and individual levels through studies ranging from the molecular (genetics, molecular epidemiology, bacterial genome characterization), cellular (mechanisms of tumor cell resistances), systems (orthopedics, theriogenology), mechanism of disease (oncology, neurology), populations (gene flow within populations, disease rates), and evaluation of disease interventions (clinical trials, observational studies).
  - b. Develop quantitative skills to assess clinical and research literature, relate population level diagnostic and clinical research to clinical practice, relate population genetic structures to herd and animal level response to interventions.
  - c. Present research to local, regional, national, and international audiences through publications in professional journals and conference papers given in a range of venues, from graduate seminars to professional meetings.
  - d. Participate in professional organizations, becoming members, attending meetings, and, where appropriate, taking leadership roles.
  - e. Broaden professional foundations through teaching, outreach, fellowships, and grant applications.
  
2. To prepare students to be effective researchers within the disciplines represented by Veterinary Clinical Sciences, the program provides a variety of experiences that help students to:
  - a. Become independent, self-motivated researchers with the ability to recognize problems in their field of expertise formulate solutions to the problems, and develop the resources and collaborations for an effective research program.
  - b. Develop comprehensive knowledge of previous and current research in their field of expertise and be able to demonstrate that knowledge through literature reviews.
  - c. Generate viable questions within their field of expertise and pose problems or hypotheses related to those questions.
  - d. Apply sound research methods to problems in their discipline and describe the methods effectively.
  - e. Collaboratively perform statistical analyses of research data and present the results in a way that makes clear sense of the data.
  - f. Discuss the solution to the research problem or the support or lack of support for the hypothesis in a way that effectively documents the contribution of the research to the area of study.
  - g. Communicate their research clearly and professionally in both written and oral forms appropriate to the field.

3. Enhance the national and international visibility of graduate education, veterinary clinical training programs and research at WSU, CVM, and Department of Veterinary Clinical Sciences.
  - a. Attract, secure, and retain high-quality students.
  - b. Enhance MS education by creating advanced courses, providing more support – resources for fellowships, research, travel to conferences, etc. – for graduate students, and providing effective mentoring that encourages students to graduate in a timely manner.
  - c. Facilitate placement of graduates into competitive positions in academics, private specialty practice, government, and industry.

The Master's of Science degree programs is a 1-4 year program. The MS degree is offered as a stand-alone degree, a combined clinical training and MS degree, or a combined DVM and MS degree.

#### **Doctor of Philosophy (PhD) Program Objectives:**

1. Enable students to develop as successful professionals for highly competitive positions in academia, industry and government.
2. Prepare students to be effective researchers (clinical, translational, and basic sciences)
3. Enhance the national and international visibility of graduate education and research in Washington State University, College of Veterinary Medicine, and Department of Veterinary Clinical Sciences.

#### **Outcomes to meet Program Objectives:**

1. Enable students to develop as successful professionals for highly competitive positions in academia, industry and government, the program provides a variety of experiences that help students to:
  - a. Develop broad expertise in appropriate concepts, theories, and emerging methodologies to effectively design and conduct original research across the disciplines represented in Veterinary Clinical Sciences. To fully understand “health” and appropriate interventions at population and individual levels through studies ranging from the molecular (genetics, molecular epidemiology, bacterial genome characterization), cellular (mechanisms of tumor cell resistances), systems (orthopedics, theriogenology), populations (gene flow within populations, disease rates, clinical trials).
  - b. Develop quantitative skills to critically assess clinical and research literature, apply quantitative skills to analyze original research, relate population level diagnostic and clinical research to clinical practice, and relate population genetic structures to herd and animal level response to interventions.
  - c. Present research to local, regional, national, and international audiences through publications in professional journals and conference papers given in a range of venues, from graduate seminars to professional meetings.
  - d. Participate in professional organizations, becoming members, attending meetings, and, where appropriate, taking leadership roles.

- e. Broaden professional foundations through teaching, outreach, fellowships, and grant applications.
2. To prepare students to be effective researchers within the disciplines represented by Veterinary Clinical Sciences the program provides a variety of experiences that help students to:
  - a. Become independent, self-motivated researchers with the ability to recognize problems in their field of expertise, design original research approaches to address problems, and formulate solutions to the problems.
  - b. Develop comprehensive knowledge of previous and current research in their field of expertise and be able to demonstrate that knowledge through literature reviews.
  - c. Generate viable questions within their field of expertise and pose problems or hypotheses related to those questions.
  - d. Apply sound research methods to problems in their discipline and describe the methods effectively.
  - e. Perform statistical analyses of research data and present the results in a way that makes clear sense of the data.
  - f. Discuss the solution to the research problem or the support or lack of support for the hypothesis in a way that effectively documents the contribution of the research to the area of study.
  - g. Communicate their research clearly and professionally in both written and oral forms appropriate to the field.
3. Enhance the national and international visibility of graduate education and research in WSU CVM Department of Veterinary Clinical Sciences.
  - a. Attract, secure, and retain high-quality students.
  - b. Enhance doctoral education by creating advanced courses, providing more support – resources for fellowships, research, travel to conferences, etc. – for doctoral students, and providing effective mentoring that encourages students to graduate in a timely manner.
  - c. Facilitate placement of graduates into competitive positions in academics, government, and industry.

The current PhD degree is contained within VCS and WSU College of Veterinary Medicine but may also be a component of the iPBS umbrella graduate program in the WSU College of Veterinary Medicine and take advantage of resources and programs contained within iPBS.

### **III. Graduate Studies Committees**

The Graduate Studies Committee is a committee of the Department of Veterinary Clinical Sciences. The committee oversees the graduate student programs, conducts annual reviews of all such students, makes recommendations to the departmental faculty, and considers other matters pertaining to the program and oversees admissions in coordination with iPBS.

The Graduate Studies Committee consists of no fewer than five departmental faculty members. The chair and at least one other member must be permanent tenure-track faculty. Members serve for four years and may be reappointed by vote of the faculty and/or by the Departmental Chairperson. Members of the Committee represent the various disciplines and functional sections of the department. For the year 2016-2017 it is composed of Drs. Keegan, Fox, K. Mealey, Wardrop, Tibary, Court, and Sischo. It also includes an ex-officio member from the department's House Officer Training Committee Dr. Grubb.

#### **IV. Graduate Students**

##### **A. Admission to Our Programs**

Students interested in pursuing graduate studies leading to the master's or doctoral degree in VCS, must apply to the WSU Graduate School and select "Veterinary Science Program" under Veterinary Science. It is advised that a faculty advisor or sponsor be named in the student's application. Applicants must meet the University requirements for admission before being considered by the department. Applications meeting the University's admission policy are forwarded to VCS and reviewed by the graduate studies committee and proposed advisor. Students admitted to the program will be notified by the department and the graduate school.

An alternative pathway for the PhD is through the iPBS program. Applications through this portal are reviewed directly by iPBS graduate admission committee. Applicants accepted through this program are eligible to match with VCS faculty.

Students accepted into one of the advanced training clinical programs must also apply to the WSU Graduate School for admission and upon meeting the requirements will be enrolled into the VCS MS program.

Students interested in a combined DVM-graduate program must meet the requirements for admission of both the DVM and Graduate School. They must also apply to the Graduate School following their admission to the DVM program.

##### **B. Periodic Evaluations**

A student's progress in the graduate program is evaluated annually by the department Graduate Studies Committee and by their faculty graduate advisory committee. All graduate students are required to complete a progress survey at the end of spring semester and meet with their faculty advisor to review their progress and set goals for the subsequent academic year.

##### **C. Student Financial Support**

Funding for graduate students varies between research programs, and faculty. Faculty sponsored graduate students may be funded through extramural and intramural research grants as research associates, funded through intramural teaching funds as teaching assistants, and funded in conjunction with specialty clinical training programs.

In the event that a fully qualified applicant is not offered funding and based on approval

of the Graduate Studies Committee and the departmental chair, an appointment may be offered. This offer is conditional on first identifying a faculty mentor and obtaining their support for the appointment. In this case the student will be appointed as a teaching associate, clinical resident, or research associate on a 0% FTE. The student will receive no compensation or benefits from Washington State University or the state of Washington, and will be required to pay tuition and fees, including out-of-state fees if applicable. The student will be required to sign a contract accepting responsibilities identical to those of a supported student.

## **V. Master's Degree**

### **A. Major Course Work**

All students are required to take a minimum 21 graded credits: 15 hours (minimum) at the 500 level and 6 hours (maximum) of 300 or 400 level coursework. Of these credits, VCS graduate students are required to complete:

- VMS 576 (Introduction to Veterinary Clinical Research-2 hours)
- VMS 582 (Seminar in Clinical Medicine-1 hour)
- VPH 505 (Design and Analysis of Biomedical Experiments-4 hours) or STAT 412 (Statistical Methods in Research-3 hours) or STAT 512 (Analysis of Variance of Designed Experiments-3 hours)
- VMS 700 (Master's Research, Thesis, or Examination-variable hours)

It is highly recommended that VMS 576 and the statistics course be satisfactorily completed by the end of year 1.

All students are required to enroll in a seminar course each semester they are enrolled in the graduate program up to a minimum 5 semesters across the program. Generally, students enroll during the first two semesters of the program in the department's seminar course (VMS 582). The remaining seminar requirement may be accrued through the department's seminar or other seminar courses offered by other departments and relevant to the student's research program. If the student and their advisor believe it is in the student's best interest to take all five semesters in an alternate seminar course, then a letter requesting that change in policy needs to be submitted to the chair of the Graduate Studies Committee and approved by the full committee. Students are expected to fully participate in the enrolled seminar course which includes presenting research at these seminars.

All students are required to complete a minimum of 4 hours of VMS 700 (Master's Research, Thesis, or Examination). Each Fall and Spring semester you are enrolled as a full-time student you are required to register for at least one hour of 700. It is a graduate school requirement that you register for a minimum of 2 hours of 700-level coursework in the semester of your final exam and thesis completion.

If a student has recently completed courses similar to those listed above or would like to substitute an equivalent course from within the proposed iPBS graduate program or other relevant graduate level courses, a request for course waiver or change to policy must be made. The student and their advisor will complete a course waiver petition (please see example in the Appendix B) and submit it to the Graduate Studies Committee. In particular, requests to waive a course should be filed with the Graduate Studies



Committee before completing the first year of the program. A request to substitute for a required course should also be formally requested by the student and their advisor, also submitted to the Graduate Studies Committee within the first year of the program.

Additional coursework may be required at the discretion of the student's advisor and their committee.

By the completion of the first semester of study, VCS graduate students must submit a **Program of Study** (POS) to the Graduate School through the VCS Graduate Studies Coordinator (Rhonda Wallen, [rwallen@vetmed.wsu.edu](mailto:rwallen@vetmed.wsu.edu)). The Program of Study is the guide used by the department and graduate school to determine that degree requirements are met. Each student is responsible for keeping their program of study accurate and amending it when it changes. It is suggested that the plan of study focus on the minimum requirements for graduation rather than listing all possible courses to be taken. The POS should be completed in collaboration with the graduate student's advisory committee.

The student must consult the Graduate School Policies and Procedures manual for any changes in requirements.

### **B. Master's Graduate Degree Advisory Committee**

The master's graduate degree advisory committee for a master's degree candidate consists of at least 3 members. The master's committee chair and members must be members of the VCS Graduate Faculty and hold an MS, PhD, or comparable degree. At least one member must be permanent, WSU tenure-track faculty. If the student is also participating in an advanced clinical training program, the training program advisor must be a member of the graduate degree advisory committee although not necessarily the chair of the graduate committee. The committee membership must be determined within the first semester of the program and will meet at minimum once per year during the program of study. Additional members may be added to the committee including people not members of the VCS graduate faculty. Please consult your faculty advisor or the chair of the Graduate Studies Committee for guidelines.

### **C. The Research Project Proposal**

All students seeking the master's degree should submit a research proposal for approval by their committee by the end of the second semester of their enrollment. This is often in conjunction with completing VMS 576. It is recommended that the student deliver a presentation on the proposed project as a seminar (VMS 582).

### **D. The Thesis**

A thesis is required for the master's degree. The thesis must contain information sufficient for at least 1 publication in a refereed journal. This thesis material must be submitted in manuscript form and be in the review process by a refereed journal before the final exam is taken. Immediately preceding the final examination, the student presents a public seminar on his/her research topic. The student's graduate advisory committee determines the style and format of the thesis. Additional thesis format requirements are available from the Graduate School. A copy of the thesis must be available for public inspection in the departmental office at least 10 working days before the final oral examination. The candidate must submit the thesis to the Graduate School for final acceptance within 5 working days after the final oral examination for the MS. The student's advisory committee must approve all aspects of the thesis before a final

examination may be scheduled.

### **E. Final Examination**

A final oral examination is required of all master's candidates. Notice of the final master's examination shall be posted along with a copy of the thesis to be available for CVM faculty and students to review at least 5 working days prior to the proposed examination. The Graduate Studies coordinator will assist the student in this task. This examination is intended to test the candidate's ability to integrate and interpret material in the major and allied fields with emphasis on the work presented in the thesis or project. The examination is public and shall not exceed 2 1/2 hours. The student will present a public seminar, less than 1 hour, on his or her work and is part of the timed examination. All members of the faculty, regardless of discipline are encouraged to attend the examination. Following the seminar presentation only faculty members who have participated in the assessment of the student's work may ask questions and vote. In the event of a failed examination, a second and final attempt may be scheduled at the request of the major department after a lapse of at least three months. Conduct of the examination must be in accordance with the Graduate School Policies and Procedures.

### **E. Master's Degree Summary**

- This program must be completed within 6 years of first credits awarded.
- Minimum of 30 credit hours
- Minimum of 21 graded credit hours
- Minimum of 15 graded 500 level credit hours
- Maximum of 6 graded 300-400 level credit hours
- Enrollment in seminar each semester of the program for minimum of 5 semesters
- Minimum of four 700 level credit hours with at least two in the semester you intend to graduate. At least 1 credit in every semester you are enrolled.

To remain a full time student, it is recommended that a student enroll in a minimum of 10 course credits. Additional credits up to 18 credits may be added if necessary. Credits beyond 18 may be requested via petition to the graduate school.

### **Program Milestones**

Appointment of advisor  
MS advisory committee formed  
MS advisory committee meets  
Complete "Responsible Conduct of Research"  
Research proposal filed and presented in seminar  
Research proposal submitted for funding  
Program of Study filed with Graduate School  
Graded coursework completed  
Research completed  
Publication summarizing research completed  
MS thesis defense

### **Timeline**

Beginning of 1st semester  
End of 1st semester  
At least once per year  
End of 1<sup>st</sup> semester  
By 3<sup>rd</sup> semester  
By end of 2<sup>nd</sup> semester  
End of 1st semester  
By 4<sup>th</sup> semester  
Prior to 5<sup>th</sup> semester  
Prior to 6<sup>th</sup> semester  
By 6<sup>th</sup> semester

### **G. Combined Degree Programs (Clinical Training and DVM/MS)**

Students enrolled in combined training and degree programs must meet requirements of both programs to remain in the graduate program. For students participating in the combined clinical training program please note: the residency is renewable for up to three years and is contingent upon your satisfactory performance and overall progress in the program. This includes, but is not limited to: conducting yourself in a professional manner at all times; meeting the professional requirements of the program; demonstrating sufficient progress in the program; and complying with all WSU rules, regulations, policies, and procedures. Failure to maintain these requirements can result in your residency being terminated or not renewed.

## **VI. PhD Degree**

### **A. Major Course Work**

All students are required to take a minimum 15 hours, 500 level graded credits and no more than 9 graded credits of 300-400 level course work may be included in the final Program of Study. Of these credits, VCS PhD graduate students are required to complete:

- VMS 576 (Introduction to Veterinary Clinical Research-2 hours)
- VMS 582 (Seminar in Clinical Medicine-1 hour)
- VPH 505 (Design and Analysis of Biomedical Experiments-4 hours) or STAT 412 (Statistical Methods in Research-3 hours) or STAT 512 (Analysis of Variance of Designed Experiments-3 hours)
- VMS 800 (Doctoral Research, Thesis, or Examination-variable hours)

It is highly recommended that VMS 576 and the statistics course be satisfactorily completed by the end of year 1. If the student and their advisor believe it is in the best interest of the student's program to enroll in an alternate and equivalent course in research design and grant writing then a letter prepared by the student through their advisor requesting that change in policy needs to be submitted to the chair of the Graduate Studies Committee to be approved by the full committee.

All students are required to enroll in a seminar course each semester they are enrolled in the graduate program. In the semester that the student is scheduled to graduate, they are exempt from the requirement to enroll in a seminar. Generally, students enroll during the first two semesters of the program in the department's seminar course (VMS 582). The remaining seminar requirement may be accrued through the department's seminar or other seminar courses offered by other departments and relevant to the student's research program. If the student and their advisor believe it is in the student's best interest to enroll all semesters in an alternate seminar course, then a letter requesting that change in policy needs to be submitted to the chair of the Graduate Studies Committee and approved by the full committee. Students are expected to fully participate in the enrolled seminar course and are required to present research progress at least once per year.

All students are required to complete a minimum of 20 hours of VMS 800 (PhD Research, Thesis, or Examination). Each Fall and Spring semester you are enrolled as a full-time student you are required to register for at least one hour of 800 credit. It is a graduate school requirement that you register for a minimum of 2 hours of 800-level coursework in the semester of your qualifying and final exams and thesis completion.

If a student has recently completed courses similar to those listed above or would like to

substitute an equivalent course from within the iPBS graduate program or other relevant graduate level courses, a request for course waiver or change to policy must be made. The student and their advisor will complete a course waiver petition (please see example in the Appendix B) and submit it to the Graduate Studies Committee. In particular, requests to waive a course should be filed with the Graduate Studies Committee before completing the first year of the program. A request to substitute for a required course should also be formally requested by the student and their advisor, also submitted to the Graduate Studies Committee within the first year of the program.

Additional coursework may be required at the discretion of the student's advisor and their committee.

By the completion of the first semester of study, VCS doctoral graduate students must submit a **Program of Study** to the Graduate School and the VCS Graduate Studies Coordinator (Rhonda Wallen, [rwallen@vetmed.wsu.edu](mailto:rwallen@vetmed.wsu.edu)). The Program of Study is the guide used by the department and graduate school to determine that degree requirements are met. Each student is responsible for keeping their program of study accurate and amending it when it changes.

The student must consult the Graduate School Policies and Procedures manual for any changes in requirements.

### **B. Teaching Requirement**

Every doctoral degree candidate is encouraged to participate as an instructor in at least one course. This experience is an important and valuable component of the educational program. University positions almost always require some teaching responsibility, and faculty are often asked to comment on the teaching ability and potential of students who have completed degrees at this institution. Teaching will include didactic lectures, leading and/or assisting in laboratories, and instructing in clinic activities.

### **C. Doctoral Degree Advisory Committee**

The Doctoral Degree Advisory Committee consists of a minimum of 3 members. The doctoral committee chair and members must be VCS Graduate Faculty and hold a PhD. At least two members must be permanent, WSU tenure-track faculty. Additional committee members holding a PhD and with special knowledge important to the proposed program but not a members of the graduate faculty may be added with approval from the Dean of the Graduate School. A current CV must accompany the request. The committee membership must be determined within the first semester of the program and will meet at minimum once per year during the program of study. Changes in the committee may change during the program but these changes need to be submitted in writing to the department and Graduate School.

### **D. Dissertation Research Proposal**

All students intending to become doctoral candidates must submit a fully-documented thesis-research proposal to the doctoral advisory committee as directed by their research advisor. The format for the dissertation proposal is at the discretion of the advisory committee but often conforms to grant submission formats (Appendix A). After the proposal is approved by the doctoral advisory committee, the student applies to the Graduate School to take the preliminary examination.

### **E. Preliminary Examination**

A preliminary examination is required of each doctoral student for advancement to candidacy for the doctoral degree. The examination is designed to determine the academic fitness of the student for pursuing a doctoral program in the field in which a degree is desired. The examination shall be written, oral, or both. The oral exam may be deemed sufficient. A written portion may be administered at the discretion of the committee or department.

### **Preliminary Examinations--Oral**

Notice of the preliminary examination must be posted, along with 2 copies of the research proposal, with the departmental secretary at least 10 working days prior to the examination. There is no time limit for the preliminary examination except that all phases (written and oral as applicable) must be completed within 30 days of beginning. All members of the doctoral advisory committee must be present in the room at the oral examination. All graduate faculty are eligible to vote but must also be in attendance during the entire examination and participated in the assessment of the research proposal. Members of the faculty not belonging to the VCS graduate faculty may be present and ask questions but shall not vote. The candidate begins the examination by presenting a summary of the proposal. The oral examination is centered upon but not entirely restricted to the research proposal. The candidate should expect to be examined in depth on subjects directly related to the research proposal. The questioning will not necessarily be restricted to the proposal itself, but can extend into areas related to the research topic. While questions are to be primarily directed to the candidate regarding the dissertation proposal, the ultimate objective is to ensure that at the completion of the oral examination potential problems in the doctoral research have been identified and addressed.

### **Preliminary Examination – Written**

At the option of the degree advisory committee a portion of the preliminary examination may be administered in written form. The format and content are the responsibility of the graduate faculty of the department but the final form of the written examination will be prepared by the degree advisory committee. The administration of the written exam will be the responsibility of the chair of the degree advisory committee. The chairperson of the Graduate Studies Committee must approve the examination.

### **Examination Outcome**

The candidate is advanced to candidacy if three fourths of the voting faculty indicate a passing performance. Failure of either the written or the oral portion constitutes a failed examination. Upon recommendation of the degree advisory committee, a second and final attempt may be given at the approval of the Graduate Studies Committee. At least 3 months and no more than 2 semesters must elapse between the failed examination and the second attempt. A scheduling form must be submitted at least 15 days prior to the re-exam and a member of the Graduate Mentor Academy will be appointed by the Graduate School and must be in attendance. A second failure removes the student from consideration as a doctoral candidate.

### **F. The Dissertation (Thesis)**

A dissertation (thesis) is required. No specific number of credits is required for this work, but the student engaged in research must enroll in VMS 800 Doctoral Research in the student's area of emphasis. The dissertation should contain information suitable for a minimum of two

publications in refereed journals and it is desirable that at least one manuscript be submitted prior to defending the dissertation. The student's graduate advisory committee will determine adequacy of the work. The student's graduate degree advisory committee is responsible for determining the style and format of the thesis. Additional thesis requirements are available from the Graduate School and must be followed.

### **G. Progress Reports**

After successful completion of the preliminary examination, each student must present at least 2 progress reports to the doctoral committee. These reports should be in the form of a departmental seminar. Before the dissertation is prepared in final form, the candidate must present a final progress report to the committee.

### **H. Final Examination**

The examination must be scheduled at least 4 months, but less than 3 years, after satisfactory completion of the preliminary examination. The final oral scheduling form must be brought to the Graduate School at least 10 working days before the final oral examination. A copy of the thesis must be brought to the Graduate School at this time to be examined by the scheduling officer. A copy must be delivered to the representative of the Graduate School at least 5 working days before the final oral examination. The candidate must take the thesis to the Graduate School for final acceptance within 5 working days of the final oral examination.

Notice of a final doctoral examination must be posted, and 2 copies of the dissertation available with the departmental graduate program coordinator, at least 10 working days prior to the examination. All aspects of the examination are public and all faculty are encouraged to attend and participate in the examination. Although the seminar and examination are open to the public, only faculty members may ask questions and vote during the examination. All members of the doctoral committee must be present at the examination, ballot meeting, and must vote.

The examination begins with a public dissertation seminar prior to the final doctoral examination. All members of the graduate faculty are encouraged to attend the public seminar and examination. The seminar consists of a 40 minute oral presentation by the candidate, followed by 10 minutes of discussion. Emphasis should be placed on the presentation and interpretation of data preceded by only a brief background summary. The final doctoral examination immediately follows the seminar. The examination including seminar shall not exceed 2 and 1/2 hours. The chairman of the candidate's advisory committee will determine the format of the examination. The examination is primarily a defense of the research, but it may cover the general fields of knowledge pertinent to the degree.

The candidate is successful if three fourths of the voting faculty indicate a passing performance. In the event of a failed final examination, a second and final attempt may be scheduled, at the request of the Graduate Studies Committee, at least 3 months after the failed first examination. A scheduling form must be submitted at least 15 days prior to the re-exam and a member of the Graduate Mentor Academy will be appointed by the Graduate School and must be in attendance. A second failure removes the student from consideration as a doctoral candidate.

## **I. Doctoral Degree Summary:**

This program requires a minimum of 3 years (6 semesters) of study.

- Minimum of 72 credit hours
- Minimum of 15 graded 500 level credit hours
- Maximum of 9 graded 300-400 level credit hours
- Enrollment in seminar each semester up to 5 credit hours
- Minimum of 20, 800 level credit hours with at least two in the semesters you intend to take the qualifying examination and to graduate. At least 1 credit in every semester you are enrolled.

To remain a full time student, each semester a student must enroll in 10-18 course credits. Exceptions to the 18 credits maximum can be made via petition.

### **Program Milestones**

Appointment of advisor  
Doctoral advisory committee formed  
Doctoral advisory committee meets  
Program of Study filed with Graduate School  
Completion of graded course work  
Submission of research proposal for funding  
Completion of qualifying examination  
Research progress report  
Submitting publications of research findings  
Doctoral Dissertation defense

### **Timeline**

Beginning of 1st semester  
By end of 1st semester  
Minimum once per year  
By end of 1<sup>st</sup> semester  
By end of 4<sup>th</sup> semester  
By end of 4<sup>th</sup> semester  
By end of 6<sup>th</sup> semester  
Annually as candidate  
Variable  
Variable

## **VII. Benefits**

### **A. Health Insurance**

Student health insurance is available and is the coverage afforded all graduate students.

### **B. University Housing**

University housing is available for graduate students, but is limited.

### **C. Athletic Facilities**

Graduate students have access to other privileges including athletic tickets and access to WSU recreational facilities.

### **D. Student Loans**

Students with Federal Guaranteed Student Loans or other types of student loans should notify their lenders that they are entering a graduate student program.

### **E. Vacation**

Two weeks per year is the typical allowed vacation for VCS graduate students. All vacations should be cleared with the student's major advisor BEFORE they are scheduled. If a student also has clinical responsibilities, the vacation should be scheduled during off clinics time.

## **VIII. Student Performance Evaluation**

### **A. Orientation**

The Graduate Studies Committee will be responsible for meeting with each new graduate student within the first semester of their program. The goal is to review the contents of this manual and answer specific questions. The annual program evaluation process will also be reviewed.

### **B. Annual Review of Graduate Students**

All graduate students will be evaluated at least annually by the Graduate Studies Committee in collaboration with their major advisor. This is a requirement for both the department and the Graduate School. The objectives are to ensure that all graduate students are meeting departmental overall program goals and progressing through their program in a timely manner. The completed reviews are evaluated by the Graduate Studies committee and a summary of individual and department accomplishments compiled and presented to the faculty and the Graduate School. The committee ensures that all students receive both their individual summary as well as the program summary. For each student appropriate recommendations on progress will be made. Individual sections and/or research advisory committees may conduct more frequent evaluations.

## **XII. Miscellaneous Information**

### **A. Grievances**

The departmental graduate student has access to a grievance committee, in the event that he or she has a major complaint which cannot be settled by the parties involved or by section administration/leaders. The grievance committee shall consist of the Chair of the House Officer Committee and The Graduate Studies Committee and the VCS chair. This is not conceived as a sounding body for trivial issues.



## **Appendix A. Example Format for Graduate Student Research Proposal:**

**Attention-** some changes in format may occur annually, please request the most recent copy before formatting your grant. These are provided only as a general guide. Grants are usually due in April or May.

The front page should include the title of the proposal, centered, followed by the principal investigator (graduate student), and then on the next line the PI's research advisor, and lastly the date of submission. The body of the paper, the research plan, should follow the format outlined below. The body of the research plan (Sections A. through E.) may not exceed 9 consecutively numbered pages. **REMEMBER TO PAGINATE, PLACE A NUMBER ON EACH PAGE.** The number of pages noted for each section are suggestions only. It is important to address all of the issues outlined below. Please adhere to the following document format: 1 inch margins all around, 1.5 line spacing and 11 point font. Please note, preference will be given to applicants that follow the proposal format instructions and have not earned a previous award. Previous applicants who were not successful are especially encouraged to improve their proposals, respond to previous critique, and make a new submission.

### A. Abstract (0.5-1 page)

State the hypothesis of the study and a brief justification for that hypothesis. Summarize the objectives and methods that will be used to test the hypothesis.

### B. Specific Aims (1 page)

Provide a clear, concise, complete, and logically arranged statement of the hypothesis and specific aims of the research.

### C. Background and Significance (2 pages)

Provide a summary of pertinent previous research with emphasis on its relationship to the proposed research. Citations should be by number in the text and the references should be presented as a numbered list in the "literature cited" section, in order of citation. The scientific, clinical, or other significance of the research should be addressed.

### D. Current Research/Preliminary Data (1-2 pages)

Describe the relevance of the proposed research to ongoing research at this and other institutions. This section may be combined with the literature review in Section B., if convenient to do so. It is important to show how the work proposed fits into the overall research goals of the investigator(s), how the principal investigator's long-term program of research will be developed, the likelihood of attracting extramural funding, and how the research will promote the mission of the college by providing a unique scholarly contribution. Also, if the applicant has any preliminary data relevant to the proposed research, this should be presented and discussed here.

### E. Research Design and Methods (4-5 pages)

Provide a statement of the essential working plans and methods to be used in attaining each of the stated objectives. Procedures should correspond to the objectives and follow the same order. Procedures should include items such as the sampling plan, experimental design,

analyses anticipated (including statistical analyses), and a discussion of the expected results and how they would be interpreted in view of the specific aims and/or hypotheses guiding the research. Also include a brief research timetable that shows all important research phases as a function of time.

#### F. Vertebrate Animals

It is your responsibility to ensure that your use of animals is approved prior to the start of your trial, if applicable, by the Institutional Animal Care and Use Committee. You do not need to provide the Research Committee with copies of the Animal Subjects forms you submitted to the IACUC. The URL for forms is: <http://www.iacuc.wsu.edu/forms.asp>. When you receive approval, forward a copy of the approval notice to the Department Chair's office. If the study involves client animals, it is your responsibility to ensure that clients are fully informed and copies of any information provided to the client are included in your IACUC request and in your research proposal.

#### G. Human Subjects

It is your responsibility to ensure that involvement of human subjects in your research is approved prior to the start of your research. The IRB (Institutional Research Board) is tasked with approving all requests. It is your responsibility that all people involved in your study are fully informed of their rights and consent to participate in the study. All copies of informed consent should be retained by the student and the student's advisor.

#### H. Literature Cited

References should be accurate and complete with full titles and first and last page numbers. Use the AJVR format for referencing. Articles should be numbered in the order that they are cited and referenced by number in the text using superscript format. Consult AJVR instructions for authors for more detail on the reference format.

#### H. Budget

Prepare a budget indicating costs associated with the project. Divide and outline costs as services, supplies, animal use charges, travel, labor, and other. Note, budgets should not exceed \$7000.00. However, very well written proposals needing more funds might be considered for additional funding with excellent budget justification. Any budgeted items that are discounted must be explained. A project requiring matching funds must be adequately described, with respect to source of the match, the nature of the match, etc.

**Appendix B.**

**Petition for Course Waiver  
Veterinary Clinical Sciences Graduate Program**

Date:

Name:

Advisor:

Name and number of course the waiver is requested for:

Please give a brief description of why you are requesting the waiver:

Please provide: 1.) course name, 2.) course number, 3.) University where course was taken and 4.) course description for courses you have taken that you believe should be accepted as substitutes for course you are requesting the waiver

Please provide a copy of this document and a copy of your transcripts demonstrating the course(s) taken to Rhonda Wallen and the chair of the Graduate Studies Committee.

