

## Graduate Program in Veterinary Medical Sciences Department of Large Animal Clinical Sciences

(updated Jan 2015)

Department Chair: Dr Carlos Risco  
[riscoc@ufl.edu](mailto:riscoc@ufl.edu)  
PO Box 100136  
2015 SW 16th Ave  
Gainesville, FL 32610  
(352) 294-4301  
(352) 294-4320  
FAX: (352) 392-8289  
<http://www.vetmed.ufl.edu/about-the-college/faculty-directory/carlos-risco/>

Graduate Coordinator: Dr Iske Larkin  
[vlarkin@ufl.edu](mailto:vlarkin@ufl.edu)  
P.O. Box 100136  
2015 SW 16th Ave  
Gainesville, FL 32610-0126  
352-294-4095  
FAX: 352-392-8289  
<http://www.vetmed.ufl.edu/about-the-college/faculty-directory/iske-larkin/>

### I. Graduate Program

You can find information on graduate studies in the College of Veterinary Medicine, including links to Application Information at: <http://research.vetmed.ufl.edu/training/training-programs/>. Application for admission to the Graduate School must be made to the Director of Admissions as described in the Graduate Catalog and details from the UF Graduate School can be found at: <http://graduateschool.ufl.edu/admission/requirements-for-all-applicants>, however, the College of Veterinary Medicine has the following additional requirements:

**A. Grade Point Average (GPA):** Admission is normally limited to students with undergraduate GPA of 3.2 or above.

**B. Graduate Record Examination (GRE):** A GRE total score of 310 (combined verbal and quantitative) or 1,150 (old scale) will normally be required for admission. Special attention will be given to the results of the quantitative portion of the GRE.

**C. Letters of recommendation:** Letters from at least 2 former teachers or persons with knowledge of the applicant's academic record and personal characteristics are required.

**D. Foreign applicants** applying to our graduate program whose native language is not English must provide proof of both a passing score on one of the below English tests and a passing GRE score. Satisfactory scores on the IELTS (International English Language Testing System), MELAB

(Michigan English Language Assessment Battery) or TOEFL (Test of English as a Foreign Language). Acceptable minimums are:

- IELTS: 6
- MELAB: 77
- TOEFL (Internet): 80
- TOEFL (Paper): 550

## II. Types of Admission:

**A. Direct:** A student who meets the above requirements is classified by the Graduate Committee as a regular graduate student.

**B. Conditional:** An applicant who fails to meet fully the above admission requirements, but is deemed to have potential as a graduate student may be admitted conditionally.

1. A conditionally admitted student must attain regular graduate status by maintaining satisfactory academic progress.
2. The progress of a conditionally admitted student will be reviewed each semester by the Graduate Coordinator.

**C. Resident's application to the Graduate School:** The Departments of LACS and SACS offer an option for Residents in the Veterinary Medical Teaching Hospital to apply for a combined Residency/Master's program. Residents who choose and are accepted into this combined program will be required to enroll in the Graduate School during the course of their Residency program. The candidate needs to meet the criteria of a Master's degree program, in addition to required duties of the Residency program.

## III. Graduate Assistants

A limited number of these assistantships are available and are awarded competitively on the basis of academic and other qualifications. Since the MS degree should normally be completed within a two-year period, this would be the limit of support for students not in the combined program. In the case of students in the combined Residency/Master's program, the limit of support will be two years after the completion of the Residency program. It is expected that students in the combined program will integrate both components of the program from the beginning of the first year of study. In this way, the final year could be used solely for completion of the Master's program. Such students will be given high priority for the award of an assistantship during the final year of their program. Doctoral candidates should complete their program in 4 years. Assistantships may not be provided beyond this time.

The following guidelines will be used in recommending applicants for financial support:

**A. Students presently holding assistantships are given first priority, provided they are making satisfactory academic progress and their work as an assistant has been satisfactory.**

1. Satisfactory academic progress will be defined as follows:
  - a. Compliance with time limitations for completion of the MS and PhD degrees as previously described.
  - b. A minimum GPA of 3.0 in all courses taken. Credit obtained through research or thesis credits will not be counted in computing the GPA.
  - c. Candidates must have a Supervisory Committee by the end of the first semester (MS) or second semester (PhD) of the first year.

The awarding of an assistantship during a Master's program does not obligate the College of Veterinary Medicine to enroll the student in a doctoral (PhD) program.

2. New applicants for assistantships will be rated as previously described under admission to the degree program, i.e., consideration of scores on GRE and TOEFL, GPA and letters of recommendation.

3. For Doctoral candidates, the qualifying examination should be passed by the beginning of the 5th semester.

#### B. Fellowship Applicants

The above guidelines shall also apply to applicants for fellowships or traineeships.

### IV. Curricula

A minimum of 30 and 90 semester hours will be required as partial fulfillment of the requirements for the MS and PhD degrees, respectively. Students with advanced standing may apply for course exemptions when minimum requirements have been met. For example, the typical professional veterinary medicine/medicine course background may satisfy core course requirements B and C (see below), but the student must petition for exemption through the Graduate Coordinator to the Office of Research & Graduate Studies.

A minimum of a B grade in each core course (A-F) is required for fulfilling the core course requirements. Failure to achieve this performance will result in remediation, repeating the course, or dismissal from the program, as determined by the Graduate Coordinator in conjunction with the Supervisory Committee.

#### Core Courses: Master's degree

**A. Statistics** - A minimum of 3 semester credit hours of graduate level courses in Statistics, with emphasis on experimental design and computer literacy: STA 6166 (Statistical Methods in Research I, 3 cr), STA 6200 (Biomedical Research Design and Analysis, 3 cr), STA 6934 (Special Topics in Statistics, 3 cr), PHC 6050 (Statistical Methods for Health Science Research), PHC 6052 (Introduction of Biostatistical Methods) or equivalent.

**B. Molecular/Physiology** - A minimum of 3 semester credit hours of graduate level courses is required, for example, Biochemistry, Molecular Biology, Immunology, or equivalent: BCH 5413 (Mammalian Molecular Biology and Genetics, 3 cr), BCH 5045 (Survey of Biochemistry), BCH 6206 (Metabolism, 3 cr); BCH 6740 (Physical Biochemistry/Structural Biology, 3 cr); ANS 6704 (Mammalian Endocrinology); VME 5244 (Physiology of Mammals, 4 cr), GMS 6400C (Principles of Physiology, 6 cr); ANS 6751 (Physiology of Reproduction), or equivalent.

#### Core Courses: PhD degree

**A. Statistics** - A minimum of 3 semester credit hours of graduate level courses in Statistics, with emphasis on experimental design and computer literacy: STA 6166 (Statistical Methods in Research I, 3 cr), STA 6200 (Biomedical Research Design and Analysis, 3 cr), STA 6934 (Special Topics in Statistics, 3 cr), PHC 6050 (Statistical Methods for Health Science Research), PHC 6052 (Introduction of Biostatistical Methods) or equivalent.

**B. Biochemistry** - A minimum of 3 semester credit hours in Biochemistry : BCH 5413 (Mammalian Molecular Biology and Genetics, 3 cr), BCH 5045 (Survey of Biochemistry), BCH 6206 (Metabolism, 3 cr); BCH 6740 (Physical Biochemistry/Structural Biology, 3 cr); ANS 6704 (Mammalian Endocrinology), or equivalent.

**C. Physiology** - A minimum of 4 semester credit hours of graduate level Physiology : VME 5244 (Physiology of Mammals, 4 cr), GMS 6400C (Principles of Physiology, 6 cr); ANS 6751 (Physiology of Reproduction), or equivalent.

**D. Seminar** - All students will be required to register for seminar two semesters per year throughout the duration of the student's graduate enrollment (maximum of 8 credit hours): VME 6931-Seminar in Veterinary Medical Sciences (Resident/Intern Seminar - 1 credit), or equivalent.

\*Recommended (but not currently required) – VME 6767 – Issues in the Responsible Conduct of Research or GMS 6003 – Essentials of Graduate Research & Professional Development

\* Please note 'or equivalent' in the core course requirements is determined by petition letter to the Dept. Graduate Coordinator for justification.

#### **V. Coursework Beyond the Core Requirements**

In general, this will depend on the educational and career goals of the applicant. In all instances, these will be graduate level courses. Credit will not be given for undergraduate courses taken to fulfill requirements for admission to graduate level courses.

**A.** The Supervisory Committee has the responsibility for recommending individual courses of study for each student.

**B.** The student must present a proposed course of study to the Graduate Coordinator for approval no later than the end of the second semester of study.

#### **VI. Teaching**

**A.** All students in the MS and PhD graduate programs in VMS are encouraged to have teaching experience during their graduate enrollment. It is a requirement for PhD students.

**B.** The student must submit a plan for fulfillment of their teaching requirement at the time that the proposed program of study is presented, and approval of this by the Graduate Coordinator is required.

C. The teaching requirement is defined as a minimum of one semester teaching that is equivalent to a one-third teaching assistantship for a 3 semester credit hour course. This requirement may be fulfilled over the duration of the student's program. Students may register for VME 6940-Supervised Teaching (2 credit minimum) while fulfilling this requirement. This requirement does not obligate the CVM to award a student a teaching assistantship during the term in which they gain teaching experience.

## VII. The Supervisory Committee

A. The MS Committee will consist of at least 3 members of the Graduate Faculty and be in place by the end of the first semester of enrollment. One member of this committee should be a faculty member from another graduate program either from inside or outside the CVM. The selection of this member will be agreed upon by the student, his/her Graduate Advisor and both Graduate Coordinators, College and Department.

B. The PhD Committee will consist of at least 4 members of the Graduate faculty (preferably 5), an equal or majority of whom must hold the PhD degree (which would include the Chair or Co-Chair). The Chair and at least one other member of the Supervisory Committee must have an appointment (regular, joint or affiliate) in either LACS or SACS. There must also be at least one external member from a department outside the CVM on the supervisory committee. This committee must be in place by the end of the second semester of enrollment.

C. In all instances, the student must send an "Appointment of Supervisory Committee Form" with the appropriate signatures to the Graduate School.

D. In the case of the combined Residency/Master's Program, a faculty advisor will be assigned to each resident upon arrival to supervise clinical activities. This individual may or may not be the Resident's advisor for graduate studies. The temporary and permanent advisors for graduate studies must be members of the Graduate Faculty and the composition of the committee must meet the criteria set forth in section VII-A.

## VIII. Guidelines for the Supervisory Committee

**A. Committee Meetings:** The Supervisory Committee should meet at least once (preferably twice) per year to monitor the student's progress. Such meeting(s) can be called by either the student, Chair of the Supervisory Committee, or other members, as deemed necessary. A copy of the minutes for each meeting, signed by the student and Chair, must be sent to the Department Graduate Coordinator. An updated Graduate Student Progress Report form must be filled out, signed by the Chair and sent to both Graduate Coordinators, Department and College.

**B. Qualifying Examination:** In the case of students in the PhD program, the Supervisory Committee will administer both the oral and written portions of the Qualifying Examination at the appropriate time, generally during or after the second year of graduate study. The recommended format of the written portion of this examination is a series of written questions, open or closed book, which cover the subject matter with which the Supervisory Committee feels the student should be familiar. It is strongly recommended that the student be evaluated to determine their knowledge of a broad subject matter rather than focusing on specific aspects

of their PhD research project. The oral portion of the examination may focus on more specific aspects of the proposed research project. The Department Graduate Coordinator or a designated representative may be present at the oral examination, per the request of the chair, student, committee member or graduate coordinator. All Graduate Faculty will be invited to attend the oral examination, and should be so notified at least one week before this examination.

Upon successful completion of the qualifying examination, the Chair of the Supervisory Committee must send an "**Admission to Candidacy Form**" with appropriate signatures to the Graduate School.

## IX. Seminars

All graduate students are expected to attend program-related seminars (as mentioned above in IV-D).

**A. MS Presentations:** Graduate students in the MS Program are expected to present a seminar annually. One seminar should present the thesis plan and should be given the first year of study. Another seminar will cover the thesis and should be given during the last semester of residence.

**B. PhD Presentations:** In the case of PhD students, one seminar should present the research plan and be presented in conjunction with the Qualifying Exam. The second seminar will be on the results of the dissertation research project and should be given during the last semester of enrollment prior to the defense of the dissertation. It is the responsibility of the Chair of the student's Supervisory Committee to schedule these seminars.

## X. Thesis/Dissertation proposal

**A.** A detailed plan for the MS thesis research project should be presented to the Supervisory Committee at the end of the first semester of enrollment. In the case of the PhD dissertation research project, it should be presented to the Supervisory Committee after the successful completion of the qualifying examination.

**B.** The approved thesis or dissertation proposal should be filed with the College Graduate Coordinator in the office for the Dean of Research & Graduate Studies.

**C.** One week prior to defense of the thesis, a draft electronic copy may be made available to any graduate faculty per request for review and evaluation. Electronic submission of the final Thesis/Dissertation is made to the Graduate School. Copies are required to be sent to the Department Chair and Chairperson of the Supervisory Committee.

## XI. Final examination

**A.** It will be the responsibility of the student to present the final copy of the thesis/dissertation to members of the Supervisory Committee for their approval at least 2 weeks before the final examination.

**B.** This may be either a written or oral examination, or both, depending upon the recommendation of the Supervisory Committee. Defense of the thesis/dissertation will be open

to graduate faculty. A majority decision of the final grade by the Supervisory Committee will be necessary before it is recommended that the student be awarded the MS or PhD degree.

**C.** All faculty will be notified in writing of the date, time and place of final examination, no later than two weeks prior to the examination.

**D.** Upon successful completion of the thesis or dissertation defense, the chairperson of the supervisory committee must send a **report on thesis/dissertation form** with appropriate signatures to the Dean of the Graduate School.