M.S. in Veterinary Medical Sciences Academic Assessment Plan 2012-13

College of Veterinary Medicine
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Office of the Provost

University of Florida

Institutional Assessment

Continuous Quality Enhancement

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Academic Assessment Plan for M.S. in Veterinary Medical Sciences

College of Veterinary Medicine

A. Mission

The mission of the Veterinary Medical Sciences PhD graduate program is to provide high-quality research training for graduate students in the biomedical sciences. This program is designed to cultivate problem-solving abilities, independent thought, oral and written communication skills, and other attitudes and skills essential for conducting research. This program is flexible and allows students to train in various areas including comparative anatomy and physiology, pharmacology, molecular biology, animal nutrition, comparative toxicology, immunology, pathology, parasitology, epidemiology, infectious diseases, and aquatic animal health.

This program aligns with the College of Veterinary Medicine mission statement, which is "The College of Veterinary Medicine advances animal, human, and environmental health through education, research, and patient care." It also aligns with the University's mission "to lead and serve the state of Florida, the nation and the world by pursuing and disseminating new knowledge while building upon the experiences of the past."

B. Student Learning Outcomes and Assessment Measures

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	Students apply technical skills, knowledge and dispositions to obtain suitable employment or pursue advanced education.	1. Determination of current employment or advanced studies status by survey of former MS degree students and/or their MS degree supervisory committee chairs will result in >90% of students either appropriately employed in a position that makes use of their MS degree or pursuing or having pursed further education for which their MS degree is an appropriate stepping stone.	Campus

Knowledge	Students identify, describe, explain and apply the literature, research, and practice in their specialization to the domains of animal health, animal biology, infectious diseases, pathophysiology and biomedical science.	2. Students will pass a general knowledge-based examination prior to receiving the MS degree.	Campus
Knowledge	Students use appropriate skills to access new knowledge bases in the current and future environment.	3. During the course of their doctoral research, students learn how to delve into the original literature, review articles, databases, and various search engines to obtain additional information not available in formal lectures. Competency in this regard will be assessed by their research supervisors.	Campus
Skills	Students analyze and critically evaluate new information and ideas contained in books and journal articles, as well as information and ideas presented at scientific meetings, seminars and/or informal discussions with other scientists.	4. Students will successfully complete one or more "Journal Club" type courses that require reading, presentation and critical evaluation of scientific papers, including defense of their evaluation of the paper to the Journal Club group.	Campus
Skills	Students apply speaking skills needed to communicate orally in formal and informal settings.	5. Students will make one or more presentations at national and/or international scientific meetings and/or continuing education presentations. One or more faculty members will assess their performance.	Campus

Skills	Students will apply speaking skills needed to communicate orally in formal and informal settings.	6. Graduate students serving as Teaching Assistants will receive satisfactory performance evaluations by the course coordinator concerning their ability to communicate with students in class and other settings.	Campus
Skills	Students use scientific writing skills effectively.	7. Students who successfully complete the Ph.D. degree will publish more than one paper in a scientific journal as first author.	Campus
Professional Behavior	Students exhibit ethical and professional behavior during their studies and research.	8. Students will successfully complete a formal course on the responsible and ethical conduct of research.	Campus
Professional Behavior	Students exhibit ethical and professional behavior during their studies and research.	9. Student writings and presentations shall be free of plagiarism and inappropriate biases of the data presented.	Campus
Professional Behavior	Students exercise the etiquette of constructive criticism, how to both provide constructive criticism and to respond appropriately to criticism in a professional manner.	10. Students learn the “art” of constructive criticism by critiquing papers and journal club presentations, as well as manuscripts produced by their peers. Students learn to accept and respond to constructive criticism through criticism of their draft manuscripts by their peers, supervisors, and co-authors, as well as criticism provided by referees of manuscripts submitted for publication in	Campus

		scientific journals. Evaluation of progress will be provided by their research supervisors.	

C. Research

The primary objective of the Veterinary Medical Sciences graduate training program is to cultivate problem-solving abilities, independent thought, oral and written communication skills and other attitudes and skills essential for conducting research. The goal is to produce graduates who are capable of functioning successfully as independent investigators in academic, governmental or industrial research positions. Areas of concentration are administered by departmental programs in Physiological Sciences, Infectious Diseases and Pathology, Large Animal Clinical Sciences, and Small Animal Clinical Sciences. Within these departmental programs, training includes appropriate course work and research in areas such as Comparative Anatomy and Physiology, Pharmacology, Biochemistry/Molecular Biology, Animal Nutrition, Comparative Toxicology, Immunology, Pathology, Parasitology, Epidemiology, and Infectious Diseases. Each departmental program has established its own graduate degree guidelines and core course requirements.

Graduate students in our programs identify research mentors based on their interests as evidenced in their initial statement of purpose. In the first semester the students are required to take specific "core" courses, designated in the individual department's guidelines and tracks. These "core" courses provide students the basic methods and tools used to conduct quality research. After the first year, each graduate student focuses on identifying an unique research project with the assistance of their Major Professor (research advisor) and a Supervisory Committee of at least 4 additional members. The Major Professor and Supervisory Committee advise the student throughout the Ph.D. graduate program. Individualized investigations and independent study courses are often used to teach a student a particular technique in the laboratory or a new contemporary technology. Each student is constantly exposed to different laboratory and clinical facilities located within the UF Veterinary Hospital, the J. Hillis Miller Health Sciences Center, the Interdisciplinary Center for Biotechnology Research, and the Veterinary Academic Research Building. Laboratories are equipped for research in cellular and molecular biology, immunology, physiology and membrane biochemistry. An infectious disease isolation facility for large domestic animals is located at the Progress Center and is one of only a few such Biosafety Level 3 facilities available in the United States. In addition, the new Veterinary Academic Research Building includes two Biosafety Level 3 laboratories. The U.F. Interdisciplinary Center for Biotechnology Research operates several core facilities to support biotechnology research, provides technical training, and sponsors workshops and seminars to enhance the research environment and experience. After completing the core course requirements and any didactic courses required by the

Supervisory Committee, the student registers for advanced research. Each student attends seminars and journal clubs and trained to write a scientific paper. The student is required to take and pass a Qualifying exam before the end of their second year. After passing the Qualifying Exam the student is admitted to Candidacy and registers for dissertation research. Towards the end of the graduate program students are encouraged to attend scientific meetings with their Major Professor to present and defend their original research. This approach enables the graduate to be part of a community of scholars by promoting the University's mission of teaching, research, service and informing the general public.

D. Assessment Timeline

Program M.S. in Veterinary Medical Sciences College of Veterinary Medicine

Assessment SLOs	Faculty Assessment	Qualifying Exams	Published Papers	Employment Survey
Knowledge				
#1				x
#2		x		
#3	x			
Skills				
#4	x	x		
#5	x			
#6	x			
#7			x	
Professional Behavior				
#8	x			
#9	x			
#10	x		x	

E. Assessment Cycle

Assessment Cycle: Program M.S. in Veterinary Medical Sciences College of Veterinary Medicine

Year SLOs	11-12	12-13	13-14	14-15
Content Knowledge				
#1		X	X	X
#2		X	X	X
#3		X	X	X
Skills				
#4		X	X	X
#5		X	X	X
#6		X	X	X
#7		X	X	X
Professional Behavior				
#8		X	X	X
#9		X	X	X
#10		X	X	X

F. Measurement Tools

SLOs are measured by successful completion of course and attendance at Journal Club and scientific seminars (**SLO-Knowledge**), successful completion of proposed research project, attendance at national or international meetings, publication of at least one first authored manuscript (**SLO-Skills**), a successful Qualifying Exam and successful defense of the Ph.D. dissertation, maturation of interpersonal skills (**SLO-Professional Behavior**), and post-graduation employment or acceptance into a post-graduate academic program (**SLO-Knowledge, Skills, Behavior**).

G. Assessment Oversight

Here, list the names and contact information of those who oversee the assessment process in your program. Add or delete rows as needed.

Name	Department Affiliation	Email Address	Phone Number
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