Tuskegee University
College of Veterinary Medicine, Nursing and Allied Health
Master of Science (MS) in Veterinary Science

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Degree Offered: Master of Science (M.S.) in Veterinary Science

* For additional information please refer to the Graduate Handbook

The Master of Science in Veterinary Science graduate program at the College of Veterinary Medicine, Nursing and Allied Health produces successful academicians and investigators in the areas of cancer cell biology, HIV/AIDS, cancer and nano-therapy, reproductive biology, risk analysis / epidemiology, food safety and control of food intake.

Admission Requirements:
- x Applicants must have completed the B.S. degree from an accredited college or university.
- x Cumulative GPA of 3.0 or better
- x Completed Online Application and Application Fee
- x Official Transcripts from all colleges/universities (International Students must have transcripts through World Education Services –WES)
- x GRE Scores at least 540 (old) 156 (new), less than 5 years old
- x Personal Statement
- x 3 Recommendation Letters
- x Resume or Curriculum
- x *ETS/WES Scores (International students only)
- x TOEFL (International students only)
- x Affidavit of Support and Bank Statement (International students only)

Graduation Requirements:
- x Core Courses: 10
- x Elective Courses: 17
- x Research/Thesis: 5
- x Admission to Candidacy
- x Passing of the Final Oral Examination

Advisory Committee:
During the first semester of his/her study in a Master of Science program, the student and his/her Major Professor must recommend to Department Head for approval an Advisory Committee consisting of a minimum of four members including the Major Professor and the Department Head. The Advisory Committee shall also serve as the Examination Committee.

Core Courses (10 credits): Required by All Students

Course	Course Number	Credit

Thesis:

The final draft of the thesis/dissertation must be filed with the student's Advisory Committee at least 30 days before the date listed in the university calendar for final copies to be submitted during the semester in which the student expects to graduate. The student must present to the Dean of Graduate Programs a "Preliminary Approval Sheet" (PAS) bearing the signature of the Major Professor before the final oral examination may be scheduled and before copies of the thesis/dissertation are distributed to members of the Examining Committee.

After the "Preliminary Approval Sheet" has been signed, it should be submitted to the Dean of Graduate Programs before the final examination is scheduled and before the final draft of the thesis/dissertation is prepared for final approval. Approval of the thesis/dissertation in its final form rests with the Examining Committee.

List of Core Courses	
EVSC 0500	BIOSTATISTICS I . CR. 3. Statistical methods in scientific research. An introductory course in statistics dealing with the application of various methods of analyzing research data to include sampling, randomization, the normal distribution, "t" test, linear regression, correlation, Chi-Square, and analysis of variance of random design. Laboratory assignments require the use of pocket calculators and the University's time share computer.
EVSC 0501	BIOSTATISTICS II . CR. 3. The application of advanced statistical methods in analyzing biological data to include analysis of two-way experiments, factorial experiments, covariance analysis, least square analysis with unequal subclass numbers and curvilinear regression. Laboratory assignments require the use of the University time share computer and departmental microcomputers. Prerequisites: EVSC 0500 or Permission of Instructor
MBIO 0660	BIOMEDICAL STATS . CR. 3. The conceptual and theoretical bases of biomedical research designs are examined. Appropriate statistical methods, which correspond to and are consistent with the biomedical research design, will be studied. These include both parametric and nonparametric methods. Descriptive statistics, probability distributions,

	proper conduct of research, issues with copyright violation, plagiarism, interpretation of published work among other academic requirements including discussions on basic research methods, and a review of current research topics. Oral presentations are and/or reports are required.
PHSI 0600	SEMINA R I - BIOMEDICAL SCIENCES . CR. 1. This is a seminar course. The student is required to present a seminar to talk about his / her research work or a project chosen by the advisor. This course teaches the techniques to prepare and present a seminar in public.
MBIO 0601	SEMINAR II – MICROBIOLOGY . CR. 1. This is a seminar course. The student is required to present a seminar to talk about his / her research work. This course teaches the techniques to prepare and present a professional seminar in public.
PHSI 0601	SEMINA R II - BIOMEDICAL SCIENCES . CR. 1. This is a seminar course. The student is required to present a seminar to talk about his / her research work. This course teaches the techniques to prepare and present a professional seminar in public.
MBIO 0700	RESEARCH IN PATHOBIOLOGY/THESIS . CR. 5. This course deals with specific research thesis projects under the supervision of the graduate student's major professor. Master's student is expected to enroll a total of 6 credit hours, conduct research and defend it.
PHSI 0700	RESEARCH IN BIOMEDICAL SCIENCES/THESIS. CR. 5 This is a required course designed to give time for the student to write their thesis work in the format required by the graduate school.
List of Elective Courses	
ANAT 301G	GROSS ANATOMY. CR. 4. This course deals with a topographic and systemic anatomic view of the canine, feline species and the domestic bird. Emphasis is placed on the dissection of the dog & cat cadavers. Prosections, plastinated specimens, videos and slides are utilized as instructional aids
ANAT 302G	MIC ROANATOMY . CR. 4. The course includes (2 lectures one hour each and 2 labs two hours each) studies of cells, tissues, and organs at the light and electron microscopic levels, with emphasis on structural-functional relationships and clinical applications. The lab component includes identification of

	importance in animals. Emphasis is placed on the identification of parasites and the diagnosis of parasitic diseases.
MBIO 411G	MICROBIOLOGY . CR. 3. This course covers the basic properties of viruses in relation to their roles as disease-causing agents. Emphasis be on a systematic review of virus families that cause diseases in domestic animals.
MBIO 413G	IMMUNOLOGY . CR. 3. This course deals with the structure, function, and kinetics of immune responses in relation to infectious, neoplastic, allergic, immunodeficiency, and autoimmune diseases. Initially the students be exposed to basic and fundamental aspects of the immune system. Prerequisite: MBIO 0411
MBIO 414G	IMMUNOLOGY/VIROLOGY LAB . CR. 1. This laboratory course covers general laboratory for the didactic lectures of Virology (MBIO 412) and Immunology (MBIO 413). Participants will have the opportunity gain general understeding of principals and objectives of diagnostic methods Virology and Immunology, collection, packaging and transport of specimens, immunological disorders including tests for autoimmune, hypersensitivity, and immunodeficiency conditions.
MBIO 412G	VIROLOGY. CR. 2 . This course deals with the basic concepts and principles of viruses and viral infections. Emphasis is placed on viral agents basic, clinical and practical importance. Prerequisite: MBIO 0411
PATH 0669	RISK ANALYSIS . CR. 3. This course will present an integrated approach to risk analysis composed of risk assessment, management and risk communication. It will rely upon a detailed analytic understanding of the epidemiology of a population under study and expertise in mathematical/statis and computer modeling methods. The course will emphasize both stochastic (probabilistic) and deterministic modelling undergirded by sound epidemiologic concepts of population dynamics. Rigorous examination of transmission pathways of agents and multiple determinants that affect these interactions will be evaluated a quantified mathematically and statistically with emphasis on probability distributions. Bo qualitative and quantitative risk analysis methods will be examined. Quantitative risk analysis (QRA) including probabilistic methods with emphasis on scenario analysis (scenario trees or risk pathway analysis), decision trees, fault tolerant analysis, sequence analysis, cost benefit analysis, optimization methods and a variety of statis methods will be explored. Monte Carlo simulation, @RISK, Microsoft Excel and other risk analysis and modeling software as well as statistical/mathematical programs will be used.
IBSC 0603	BIOCHEMISTRY I . CR. 4. IBS course development mol.cell-organism-development-