Program Requirements

M.S. in Veterinary Microbiology (Thesis and Non-Thesis)

Ph.D. in Veterinary Microbiology

Required courses for all MS and PhD students:

GR ST 5650   Responsible Conduct of Research Cr. 1

STAT 5870   Statistical Methods for Research Workers Cr.4

VMPM 6040   Seminar VMPM 6040 **OR**   Micro 6040   **OR**   Imbio 6040
(1 for MS students and 3 for Ph.D students over the course of their program)

Additionally, MS students are required to take 1 course in 2/4 areas and PhD students are required to take 1 course in 3/4 areas.

Required Areas:
Bacteriology:
VMPM 5860   Medical Bacteriology Cr. 4
VMPM 6250   Mechanisms of Bacterial Pathogenesis Cr. 3
Micro 5520 & 5530 & 5550 Combined:
    5520: Bacterial molecular genetics and physiology Cr. 1
    5530: Pathogenic microorganisms Cr. 1
    5550: Fungal biology Cr. 1

Virology:
VMPM 5870   Animal Virology Cr. 3
VMPM 6080   Molecular Virology Cr. 3

Immunology:
VMPM 5200   Medical Immunology Cr. 3
      OR
VMPM 5750   Immunology Cr. 3

Epidemiology:
VMPM 5280   Introduction to Epidemiology and Pop Health. Cr. 3
VMPM 5270   Applications to Statistics to Pop Studies Cr. 3
VMPM 5290   Epidemiological Methods for Population Research Cr. 3

Ph.D. in Veterinary Microbiology (Preventive Medicine Emphasis)

Required Coursework:
VMPM 5280   Introduction to Epidemiology and Prev. Med. Cr. 3
VMPM 5270   Applications to Statistics to Pop Studies Cr. 3
VMPM 5290   Epidemiological Methods for Population Research Cr. 3

A list of additional courses relevant to the VMPM major:

Micro 5510   Microbial diversity and phylogeny Cr. 1
Micro 5560   Microbial ecology and environmental monitoring Cr. 1
Micro 5540   Virology
VMPM 5250   Intestinal Microbiology, Cr. 3
PIP 5090   Plant Virology Cr. 4
BMS 5750   Cell Biology Cr. 3
V Pth 6550   Cellular and Molecular Pathology I Cr. 3
BBMB 6450   Molecular Endocrinology; Hormones and Growth Factors Cr. 2
STAT 4020   Statistical Design and the Analysis of Experiments Cr. 3
STAT 4030   Nonparametric Statistical Methods Cr. 2
STAT 4070   Methods of Multivariate Analysis Cr. 3
STAT 4150   Advanced Statistical Methods for Research Workers Cr. 3
STAT 4210   Survey Sampling Techniques Cr. 3

Interdepartmental Programs

The Course requirements for the Interdepartmental Majors can be found at their respective web sites:

Bioinformatics and Computational Biology (BCB)

Genetics

Immunobiology

Microbiology

Molecular, Cellular and Developmental Biology (MCDB)

Toxicology