VPAT - VETERINARY PATHOLOGY

- **VPAT 601 Comparative Pathology**  
  Credits: 4.3 Lecture Hours, 3 Lab Hours. 
  Pathologic processes occurring in diseased cells, tissues and organs of animals and humans; their pathogenesis and morphologic manifestations. 
  **Prerequisites:** Courses in gross and microscopic mammalian anatomy and physiology and approval of instructor.

- **VPAT 610 Cell Mechanisms of Disease**  
  Credits: 3.3 Lecture Hours. 
  Cellular mechanism, morphologic manifestations and clinical presentation of illustrative disease processes. 
  **Prerequisites:** Graduate classification with a major in BIMS, VTPB, or BMEN; approval of instructor.

- **VPAT 620 Humane, Public Health and Regulatory Aspects of Animal Use**  
  Credit: 1.1 Lecture Hour. 
  Emphasizes thoughtful and humane use of animals in teaching, research and service; human and animal health benefits of biomedical research; governmental policies regulations, public health implications, management practices, and public relations pertaining to animal use in research and teaching.

- **VPAT 640 Advanced Mechanisms of Disease**  
  Credits: 2.2 Lecture Hours. 
  Concepts of pathogenesis of disease processes. 
  **Prerequisite:** DVM degree or approval of instructor.

- **VPAT 641 Systemic Pathology I**  
  Credits: 4.2 Lecture Hours, 4 Lab Hours. 
  Disease manifestations in special organs and tissues and interrelations of pathologic processes in individual and functionally related organs. 
  **Prerequisite:** DVM degree or equivalent.

- **VPAT 642 Mechanisms of Metabolic Disease**  
  Credits: 2.2 Lecture Hours. 
  Characteristics and mechanisms of diseases caused either by deficiency, imbalance, excess of specific nutrients or chemicals, or by regulatory disturbances of metabolism. 
  **Prerequisite:** DVM degree or approval of department head.

- **VPAT 643 Applied Pathology**  
  Credits: 1 to 6, 1 to 6 Other Hours. 
  Application of information and concepts of anatomic and clinical pathology to the diagnosis of animal disease; gross pathological changes observed in necropsy are correlated with and corrected by histopathologic observations; confirmatory methods of clinical pathology and laboratory medicine used where indicated. May be taken more than once but not to exceed 6 hours of credit toward a graduate degree. 
  **Prerequisite:** DVM degree or equivalent.

- **VPAT 645 Neoplastic Diseases**  
  Credits: 1 to 8, 1 to 8 Other Hours. 
  Theoretical, histopathological and clinical aspects of neoplasia. Diagnosis of neoplastic and related conditions in all species. May be taken more than once but not to exceed 8 hours of credit toward a graduate degree. 
  **Prerequisite:** DVM degree or equivalent.

- **VPAT 650 Neuropathology of Animals**  
  Credits: 1 to 4, 1 to 4 Other Hours. 
  Pathology and pathogenesis of diseases of the central and peripheral nervous systems. Interpretation of gross and microscopic lesions of the nervous system associated with disease processes. May be taken more than once but not to exceed 4 hours of credit toward a graduate degree. 
  **Prerequisite:** DVM degree or equivalent.

- **VPAT 651 Systemic Pathology II**  
  Credits: 2.1 Lecture Hour, 3 Lab Hours. 
  Continuation of VPAT 641. Disease manifestations in special organs and tissues and interrelations of pathologic processes in individual and functionally related organs. 
  **Prerequisite:** VPAT 641.

- **VPAT 652 Cell Mechanisms of Disease**  
  Credits: 3.3 Lecture Hours. 
  Basic cellular mechanisms and general manifestations of disease; illustration of clinical and anatomical/morphological aspects of various diseases. 
  **Prerequisites:** Graduate classification; enrollment in BIMS or BMEN curriculum; approval of instructor.

- **VPAT 653 Diseases of Laboratory Animals**  
  Credits: 3.3 Lecture Hours. 
  Pathology and pathogenesis of spontaneous infectious, parasitic, metabolic and neoplastic diseases of laboratory animals. 
  **Prerequisite:** VTPB 922 or equivalent.

- **VPAT 681 Seminar**  
  Credit: 1.1 Lecture Hour. 
  For graduate and special students in veterinary or comparative pathology; presentation and discussion of special topics and research data concerning pathology and pathogenesis of disease. 
  **Prerequisite:** Approval of instructor.

- **VPAT 685 Directed Studies**  
  Credits: 1 to 4, 1 to 4 Other Hours. 
  Advanced special problems concerned with pathogenesis and pathology of disease. 
  **Prerequisite:** Approval of instructor.

- **VPAT 689 Special Topics in...**  
  Credits: 1 to 4, 1 to 4 Lecture Hours, 0 to 4 Lab Hours. 
  Selected topics in an identified area of veterinary or comparative pathology. May be repeated for credit.

- **VPAT 690 Theory of Research**  
  Credits: 3.3 Lecture Hours. 
  Theory and design of research related to current biomedical problems especially those involving study of animal diseases; philosophical perspectives underlying historical advances in research pertaining to the study, prevention and treatment of disease. 
  **Prerequisite:** Graduate classification. 
  **Cross Listing:** VIBS 690 and VTPP 690.

- **VPAT 691 Research**  
  Credits: 1 to 23, 1 to 23 Other Hours. 
  Research for thesis or dissertation.