

# VPAT - VETERINARY PATHOLOGY

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## 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 640 Mechanisms of Disease

**Credits 4. 4 Lecture Hours.**

Overview of general pathology concepts and the pathophysiology of these processes.

**Prerequisite:** DVM degree or equivalent, or approval of instructor.

## VPAT 641 Systemic Pathology I

**Credits 4. 4 Lecture 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 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 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 4. 4 Lecture 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 Pathology 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 654 Fundamentals in Laboratory Animal Medicine

**Credits 2. 2 Lecture Hours.**

Knowledge of the biology, management, and diseases of laboratory animals; preparation of comparative medicine residents for the board certifying examination of the American College of Laboratory Animal Medicine (ACLAM).

**Prerequisites:** DVM degree and acceptance into the laboratory animal residency program; or approval of instructor.

## VPAT 655 Contemporary Topics in Laboratory Animal Medicine

**Credit 1. 1 Lecture Hour.**

Analysis of at least one article per week and deliverance of a short oral presentation to the class concerning the article's main points as well as commenting on the quality of the paper experimental design; relies heavily from the current literature published through two main laboratory animal medical journals, Comparative Medicine (CompMed) and Journal of the American Association for Laboratory Animal Science (JAALAS).

**Prerequisites:** DVM and acceptance into the laboratory animal residency program; or approval of instructor.

## VPAT 660 Mammalian Cell Pathobiology

**Credits 3. 3 Lecture Hours.**

Cell signaling and organelle perspective of pathogenesis, mechanisms leading to a disease state; fundamental understanding of structural and functional properties of mammalian cells; molecular and cellular mechanisms underlying health-disease transitions.

**Prerequisites:** BIOL 111 and BIOL 112, or approval of instructor.

## VPAT 667 Animal Research Laws and Regulations

**Credits 2. 2 Lecture Hours.**

Laws and policies regarding the ethical use of animals in biomedical and agricultural research; familiarity with the major U.S. laws and regulations surrounding the production and use of laboratory animals for research, teaching and testing.

**Prerequisite:** DVM degree or equivalent, or approval of instructor.

## VPAT 668 Animal Models

**Credit 1. 1 Lecture Hour.**

Working knowledge of the most common animal models used to study both human and animal diseases and conditions.

**Prerequisites:** DVM degree and acceptance into the Laboratory Animal Residency Program, or approval of instructor.

## 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 691 Research

**Credits 1 to 23. 1 to 23 Other Hours.**

Research for thesis or dissertation.