

Veterinary Pathology (V PTH)

Courses primarily for professional curriculum students:

V PTH 342. Anatomic Pathology I.

(Dual-listed with V PTH 542). (2-2) Cr. 3. S. *Prereq:* First-year classification in veterinary medicine

Basic pathology with emphasis on disease in animals and introduction to diseases by system.

V PTH 353. Introductory Parasitology.

(Cross-listed with BIOL, MICR). (3-0) Cr. 3. S. *Prereq:* BIOL 212

Biology and host-parasite relationships of major groups of animal parasites, and techniques of diagnosing and studying parasites.

V PTH 372. Anatomic Pathology II.

(Dual-listed with V PTH 572). (3-3) Cr. 4. F. *Prereq:* Graduate classification and V PTH 542

Response to injury by each body system.

V PTH 376. Veterinary Parasitology.

(Dual-listed with V PTH 576). (3-3) Cr. 4. F. *Prereq:* Graduate classification and V PTH 542

Parasitic diseases of domestic animals and their control.

V PTH 377. Case Study III.

(0-4) Cr. 2. F. *Prereq:* Second-year classification in veterinary medicine

Clinical applications of the basic sciences taught concurrently in the fall semester of the second year curriculum in veterinary medicine.

V PTH 401. Basics of Medical Terminology.

(1-0) Cr. 1. F.

8 weeks, offered first half semester only. Discussion of prefixes, suffixes, and roots (mostly from Latin and Greek) that comprise medical terms.

V PTH 409. Introduction to Veterinary Cytology and Laboratory Techniques.

(0-2) Cr. 1. S. *Prereq:* Third-year classification in veterinary medicine

Description, interpretation, and techniques for cellular preparations from tissues and body fluids.

V PTH 410. Llama Medicine.

(1-0) Cr. 1. S. *Prereq:* Second or third year classification in veterinary medicine

Offered first half semester only. Introduction to basic camelid medicine, including anatomy, behavior, restraint, handling, husbandry, herd health, common diseases, surgical conditions, and anesthesia protocols.

V PTH 425. Clinical Pathology.

(2-4) Cr. 4. S. *Prereq:* V PTH 372

Principles of clinical hematology, clinical chemistry, and urinalysis in domestic animals.

V PTH 456. Necropsy Laboratory Practicum.

Cr. 1. Repeatable. *Prereq:* Fourth-year classification in veterinary medicine
Practicum in postmortem examination and diagnosis.

V PTH 457. Clinical Pathology Laboratory Practicum.

Cr. 1. Repeatable. *Prereq:* Fourth-year classification in veterinary medicine
Methodology in clinical chemistry, hematology and cytology; practice in interpretation of laboratory data.

V PTH 478. Medical Protozoology.

(Dual-listed with V PTH 578). (Cross-listed with ENT, MICRO). (2-1) Cr. 3. F. *Prereq:* MICRO 302 or BIOL 314, or equivalent

Medically important protozoa: their ecology and biology and the diseases they cause in humans and animals. Emphasis is on the protozoa, with some consideration of parasitic nematodes. Topics include: infection and immunity, computational biology/bioinformatics, unique/special subcellular systems (pathways and organelles), vector-parasite-host interactions, disease prevention/treatment strategies, developmental biology. Nonmajor graduate credit.

V PTH 490. Independent Study.

Cr. arr. Repeatable. *Prereq:* Permission of instructor and department chair

V PTH 492. Orientation for International Experience.

(2-0) Cr. 1. Repeatable. S. *Prereq:* Classification in veterinary medicine

8 weeks. Predeparture orientation for group study abroad. Cultural considerations for the study abroad experience and a conversational language introduction. Out of class work will be assigned. Offered on a satisfactory-fail basis only.

V PTH 496. International Preceptorship.

(0-40) Cr. 1-12. Repeatable. F.S.SS. *Prereq:* Second-year classification in veterinary medicine

International Preceptorships and Study Abroad Group programs. This course will provide opportunities for students to be involved in applied clinical, production, and/or research experience in international locations. The course consists of 40 hour per week experiential learning opportunities. Offered on a satisfactory-fail basis only.

Courses primarily for graduate students, open to qualified undergraduates:

V PTH 530. Teaching and Learning in Veterinary Medical Education.

(3-0) Cr. 3. Alt. F., offered 2014.

Study of principles of teaching and learning as they relate to veterinary medical education. These include: theories of learning, analyzing content/learners/context, identifying goals, identifying appropriate instructional strategies (specific to medical education), matching assessment processes to goals and strategies, common curricular approaches and decision-making processes in medical education, and the scholarship of teaching and learning for veterinary medical educators.

V PTH 542. Anatomic Pathology I.

(Dual-listed with V PTH 342). (2-2) Cr. 3. S. *Prereq:* Graduate classification and BIOL 352 or equivalent for graduate credit, permission of instructor

Basic pathology with emphasis on disease in animals and introduction to diseases by system.

V PTH 548. Diagnostic Parasitology Laboratory.

Cr. 1-3. F.S.SS. *Prereq:* V PTH 376 or V PTH 576

Contact hours are (0-3 to 0-9). A laboratory experience in the technical and applied aspects of veterinary parasitology.

V PTH 549. Clinical Pathology Laboratory.

(0-3) Cr. 1. Repeatable. F.S.SS. *Prereq:* V PTH 457; permission of instructor

Laboratory procedures and clinical interpretations with emphasis on hematology, cytology, and clinical chemistry. Offered on a satisfactory-fail basis only.

V PTH 550. Surgical Pathology Laboratory.

Cr. 1-3. Repeatable. F.S.SS. *Prereq:* V PTH 570 or V PTH 571; permission of instructor

Contact hours are (0-3 to 0-9). Diagnosis of lesions in biopsy specimens; classification of neoplasms. Course includes rotation through departmental biopsy service and review of selected cases from departmental archives. Offered on a satisfactory-fail basis only.

V PTH 551. Postmortem Pathology Laboratory.

Cr. 1-3. Repeatable. F.S.SS. *Prereq:* V PTH 542; permission of instructor

Contact hours are (0-3 to 0-9). Necropsy techniques of animals with emphasis on gross and microscopic lesions and diagnosis. Offered on a satisfactory-fail basis only.

V PTH 554. Ethics in Scientific Research and Writing.

(1-0) Cr. 1. Alt. S., offered 2014. *Prereq:* Graduate classification

Ethical conduct in biomedical research, criticism, writing, and adherence to regulations. Offered on a satisfactory-fail basis only.

V PTH 570. Systemic Pathology I.

(2-4) Cr. 4. Alt. F., offered 2014. *Prereq:* V PTH 342 or V PTH 542; permission of instructor

Pathology of the respiratory, reproductive, endocrine, musculoskeletal, and cardiovascular systems. Emphasis on pathogenesis and anatomic pathology correlated with interpretive clinical pathology where appropriate.

V PTH 571. Systemic Pathology II.

(2-4) Cr. 4. Alt. F., offered 2013. *Prereq:* V PTH 342 or V PTH 542; permission of instructor

Pathology of the integumentary, urinary, digestive, lymphoid, and nervous systems and special senses. Emphasis on pathogenesis and anatomic pathology correlated with interpretive clinical pathology where appropriate.

V PTH 572. Anatomic Pathology II.

(Dual-listed with V PTH 372). (3-3) Cr. 4. F. *Prereq:* Graduate classification and V PTH 542

Response to injury by each body system.

V PTH 576. Veterinary Parasitology.

(Dual-listed with V PTH 376). (3-3) Cr. 4. F. *Prereq:* Graduate classification and V PTH 542

Parasitic diseases of domestic animals and their control.

V PTH 578. Medical Protozoology.

(Dual-listed with V PTH 478). (Cross-listed with ENT, MICRO). (2-1) Cr. 3. F. Prereq: MICRO 302 or BIOL 314, or equivalent

Medically important protozoa: their ecology and biology and the diseases they cause in humans and animals. Emphasis is on the protozoa, with some consideration of parasitic nematodes. Topics include: infection and immunity, computational biology/bioinformatics, unique/special subcellular systems (pathways and organelles), vector-parasite-host interactions, disease prevention/treatment strategies, developmental biology. Nonmajor graduate credit.

V PTH 590. Special Topics.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 590A. Special Topics: Veterinary Pathology.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 590B. Special Topics: Veterinary Parasitology.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 590C. Special Topics: Veterinary Toxicology.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 590D. Special Topics: Veterinary Clinical Pathology.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 590E. Special Topics: Other.

Cr. 1-4. Repeatable. F.S.SS. Prereq: Permission of instructor

V PTH 596. International Preceptorship.

(0-40) Cr. 1-12. Repeatable. F.S.SS. Prereq: Admission to graduate college International Preceptorships and Study Abroad Group programs. This course will provide opportunities for students to be involved in applied clinical, production, and/or research experiences in international locations. The course consists of 40 hour per week experiential learning opportunities. Offered on a satisfactory-fail basis only.

V PTH 599. Creative Component Research.

Cr. arr. Repeatable.

Course for departmental graduate research.

V PTH 599A. Creative Component Research: Veterinary Pathology.

Cr. arr. Repeatable.

Course for departmental graduate research.

V PTH 599B. Creative Component Research: Veterinary Parasitology.

Cr. arr. Repeatable.

Course for departmental graduate research.

V PTH 599C. Creative Component Research: Veterinary Toxicology.

Cr. arr. Repeatable.

Course for departmental graduate research.

V PTH 599D. Creative Component Research: Veterinary Clinical Pathology.

Cr. arr. Repeatable.

Course for departmental graduate research.

Courses for graduate students:**V PTH 604. Pathology Case Seminar.**

Cr. 1-2. Repeatable. F.S. Prereq: permission of instructor

Description and interpretation of microscopic lesions and clinical pathology data collected from cases of natural and experimental disease. Offered on a satisfactory-fail basis only.

V PTH 605. Current Topics Seminar.

Cr. 1. Repeatable. F.S.SS.

A seminar of graduate research at the time of thesis or dissertation defense.

V PTH 606. Diagnostic Interpretation.

Cr. R. F.S.SS. Prereq: permission of instructor

A comprehensive examination in the diagnostic description and interpretation of case materials relevant to veterinary pathology and areas of specialization for the graduate degree preliminary examination.

V PTH 606A. Diagnostic Interpretation: Veterinary Pathology.

Cr. R. F.S.SS. Prereq: permission of instructor

A comprehensive examination in the diagnostic description and interpretation of case materials relevant to veterinary pathology and areas of specialization for the graduate degree preliminary examination.

V PTH 606B. Diagnostic Interpretation: Veterinary Parasitology.

Cr. R. F.S.SS. Prereq: permission of instructor

A comprehensive examination in the diagnostic description and interpretation of case materials relevant to veterinary pathology and areas of specialization for the graduate degree preliminary examination.

V PTH 606C. Diagnostic Interpretation: Veterinary Toxicology.

Cr. R. F.S.SS. Prereq: permission of instructor

A comprehensive examination in the diagnostic description and interpretation of case materials relevant to veterinary pathology and areas of specialization for the graduate degree preliminary examination.

V PTH 606D. Diagnostic Interpretation: Veterinary Clinical Pathology.

Cr. R. F.S.SS. Prereq: permission of instructor

A comprehensive examination in the diagnostic description and interpretation of case materials relevant to veterinary pathology and areas of specialization for the graduate degree preliminary examination.

V PTH 652. Pathologic Hematology.

(2-2) Cr. 3. Prereq: V PTH 425; permission of instructor

Pathologic changes in blood constituents of domestic animals.

V PTH 655. Cellular and Molecular Pathology I.

(3-0) Cr. 3. Alt. S., offered 2015. Prereq: Graduate course in biochemistry, genetics, or cell biology

Cellular and molecular mechanisms of cell injury, cellular responses to injury, and inflammation.

V PTH 656. Cellular and Molecular Pathology II.

(Cross-listed with TOX). (3-0) Cr. 3. Alt. S., offered 2014. Prereq: Graduate course in biochemistry, genetics, or cell biology

Cellular and molecular mechanisms of carcinogenesis.

V PTH 660. Pathogenesis of Persistent Infections.

(Cross-listed with V MPM). (2-0) Cr. 2. Alt. S., offered 2015. Prereq: Permission of instructor

Study of current knowledge related to host pathogen interactions during persistent and chronic infections by bacteria, viruses and parasites.

V PTH 663. Clinical Chemistry.

(2-2) Cr. 3. Prereq: V PTH 425; permission of instructor

The pathophysiology, methodology, and clinical application of laboratory medicine.

V PTH 679. Histopathology of Laboratory Animals.

(0-4) Cr. 2. Alt. SS., offered 2014. Prereq: V PTH 570 or V PTH 571; permission of instructor

Study of microscopic lesions in laboratory animals with emphasis on description, etiology, pathogenesis, and diagnosis.

V PTH 699. Research.

Cr. arr. Repeatable.

Course restricted to graduate program within the department.

V PTH 699A. Research: Veterinary Pathology.

Cr. arr. Repeatable.

Course restricted to graduate program within the department.

V PTH 699B. Research: Veterinary Parasitology.

Cr. arr. Repeatable.

Course restricted to graduate program within the department.

V PTH 699C. Research: Veterinary Toxicology.

Cr. arr. Repeatable.

Course restricted to graduate program within the department.

V PTH 699D. Research: Veterinary Clinical Pathology.

Cr. arr. Repeatable.

Course restricted to graduate program within the department.