

**800. Problems in Pathology**

*Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of department.*

Elective work for students in medicine interested in pathology as a specialty, or in the special pathology of diseases of a particular class or species, and for graduate students interested in pathological techniques or in nonthesis research.

**801. Pathology Seminar**

*Fall, Winter, Spring. 1(1-0) May reenroll for a maximum of 3 credits for M.S. candidates and 6 credits for Ph.D. candidates. Approval of department.*

Presentations and discussions by departmental graduate students, faculty or outside speakers on current topics in pathology.

**802. Advanced Systemic Pathology I**

*Winter of even-numbered years. 4(3-3) Approval of department.*

Histopathologic aspects of the digestive, respiratory and urinary systems. Pathogenesis related to morphologic change.

**803. Advanced Systemic Pathology II**

*Fall of even-numbered years. 4(3-3) Approval of department.*

Histopathologic aspects of the eye and ear and of the nervous, endocrine and integumentary systems. Pathogenesis related to morphologic change.

**804. Oncology**

*Spring. 4(3-3) Approval of department.*

Benign and malignant neoplasms with emphasis on gross and microscopic characteristics and diagnosis. Current concepts of oncogenesis and tumor therapy.

**805. Pathology Proseminar**

*Fall. 2(2-0) Approval of department.*

Instruction in preparation and presentation of seminars; philosophy and methods of research; theses and other research reports; literature review; illustration of research data; practical assignments.

**806. Advanced General Pathology**

*Fall of odd-numbered years. 3(3-0) Approval of department.*

Fundamental concepts of cell injury, inflammation and oncogenesis. Emphasis on molecular and biochemical mechanisms of pathologic processes.

**806L. Advanced General Pathology Laboratory**

*Fall of odd-numbered years. 1(0-3) Approval of department, PTH 806 concurrently.*

Histopathologic and ultrastructural study of morphologic patterns in inflammation, cell injury and neoplasia.

**807. Advanced Systemic Pathology III**

*Winter of odd-numbered years. 4(3-3) Approval of department.*

Histopathologic aspects of the cardiovascular, hemolymphatic, musculoskeletal and reproductive systems. Pathogenesis related to morphologic change.

**808. Clinical Pathology Diagnosis**

*Spring. 3(0-9) Approval of department.*

Diagnosis of animal diseases based on hematologic, cytologic and biochemical tests. Emphasis on the correlation of laboratory data with clinical history and physical findings.

**810. Postmortem Diagnosis**

*Fall. 3(0-9) May reenroll for a maximum of 6 credits. Approval of department.*

Diagnosis of animal diseases by means of necropsy and other laboratory techniques. Emphasis on correlation and interpretation of gross and microscopic lesions and results of other tests.

**812. Advanced Human Hematology**

*Winter. 5(3-4) M T 407 or approval of department.*

Selected topics in hematology including the pathogenesis, mechanisms and morphology of hematologic diseases in humans.

**815. Histopathologic Diagnosis**

*Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 6 credits. PTH 802, PTH 803, PTH 804, PTH 810, approval of department.*

Preparation, histopathologic examination, description, diagnosis and reporting of specimens from biopsy and necropsy.

**818. Pathotoxicology**

*Summer of even-numbered years. 4(4-0) One graduate course in pathology or approval of instructor.*

Pathologic changes in tissues of animals used in toxicologic studies. Clinical pathologic assessments. Gross, histologic and ultrastructural changes in organ systems.

**820. Advanced Human Hematology**

*Fall of odd-numbered years. 2(2-0) M T 420, M T 421 or approval of department. Interdepartmental with and administered by Medical Technology Program.*

Selected topics in hematology including the pathogenesis, mechanisms and morphological picture of hemotologic diseases in humans.

**821. Advanced Veterinary Hematology**

*Spring of odd-numbered years. 4(3-3) Approval of department.*

Current concepts in the pathogenesis, mechanisms and morphology of hematologic diseases of animal species.

**822. Advanced Clinical Biochemistry**

*Spring of even-numbered years. 4(3-3) Approval of department.*

Selected topics in clinical biochemistry, enzymology, immunopathology and related subdisciplines that focus on current technology used in the diagnosis of disease.

**826. Laboratory Animal Pathology**

*Winter of even-numbered years. 4(3-3) Approval of department.*

Gross, histologic, ultrastructural and clinicopathologic study of diseases of laboratory animals.

**840. Advanced Hemostasis**

*Fall of even-numbered years. 2(2-0) M.S. candidates in Clinical Laboratory Science or approval of department. Interdepartmental with and administered by Medical Technology Program.*

Physiology, pathophysiology and laboratory evaluation of hemostatic disorders.

**899. Master's Thesis Research**

*Fall, Winter, Spring, Summer. Variable credit. Approval of department.*

**901. Investigating the Lung**

*Fall of even-numbered years. 3(3-0) Approval of department. Interdepartmental with the departments of Large Animal Clinical Sciences, and Physiology. Administered by the Department of Large Animal Clinical Sciences.*

Classic and current concepts of respiratory structure and function in health and disease and mechanisms of lung injury.

**990. Advanced Correlative Pathology**

*Fall, Spring. 5(1-15) Approval of department.*

Compilation and formal presentation of the correlative findings of case material in anatomic and/or clinical pathology.

**999. Doctoral Dissertation Research**

*Fall, Winter, Spring, Summer. Variable credit. Approval of department.*

**PEDIATRICS PED**

**College of Osteopathic Medicine**

**580. Substance Abuse for Health Professional**

*Winter. 1(1-0) Student in the College of Human Medicine or College of Osteopathic Medicine.*

Practical knowledge of ways to recognize and effectively deal with individuals affected by substance abuse.

**590. Special Problems in Pediatrics**

*Fall, Winter, Spring, Summer. 1 to 8 credits. Approval of department.*

Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.

**600. Pediatrics Clerkship**

*Fall, Winter, Spring, Summer. 8 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.*

Practical clinical exposure in the area of pediatrics. Program developed to achieve proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management and therapy.

**620. Directed Studies**

*Fall, Winter, Spring, Summer. 2 to 24 credits. May reenroll for a maximum of 48 credits. PED 600 or approval of department.*

Study in general or specialty pediatrics.

**PEDIATRICS AND HUMAN DEVELOPMENT PHD**

**College of Human Medicine**

**520. Genetics Clinic**

*Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits.*

Students will interview and examine patients with inheritable disorders, perform related laboratory diagnostic procedures, and participate in genetic counseling conferences and discussions.