830 **Concepts in Molecular Biology**

Fall, Spring. 2(2-0) Interdepartmental with Medical Technology. Administered by Medical Technology Program. RB: One course in biochemistry or concurrently.

Techniques and theories of molecular biology, nucleic acid synthesis and isolation, enzymatic digestion and modification, electrophoresis, hybridization, amplification, library construction, and cloning.

Advanced General Pathology

Fall of even years. 3(3-0) RB: (PTH 852) concurrently. R: Approval of department.

Fundamental concepts of cell injury, inflammation, and oncogenesis. Mechanisms of disease.

Advanced General Pathology Laboratory Fall of even years. 1(0-2) RB: PTH 851 con-852

currently R: Approval of department.

Histopathologic and ultrastructural study of general morphologic patterns of inflammation cell injury and

853 **Advanced Systemic Pathology**

Spring of odd years. 4(3-2) R: Approval of department.

Pathological aspects of the nervous, endocrine, cardiovascular, respiratory, urinary, genital, musculoskeletal, integumentary and special sense sys-

855 **Essentials of Scientific Communication**

Fall of odd years. 2(2-0) R: Approval of department.

Preparation, editing, and review of research manuscripts and grants. Critique of oral presentations. Illustrations of research data and thesis preparation. Philosophy and methods of research.

Concepts in Toxicologic Pathology

Summer of odd years. 2(2-0) R: Approval of department.

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

Correlative Diagnostic Pathology

Fall, Spring, Summer. 3(0-6) R: Approval of department.

Diagnosis of animal diseases by necropsy, biopsy, or clinical pathology. Correlation of diagnostic test results with history, laboratory data and morphologic findings. Compilated and formal presentation of findings.

Pathology of Avian Diseases 858

Spring of even years. 2(2-0) R: Approval of department

An overview of disease and pathology affecting domestic poultry, pet birds, and wild birds.

859 Avian Histopathology Laboratory

Spring of even years. 1(0-2) R: Approval of department.

Recognition and description of microscopic lesions of avian diseases.

Clinical Laboratory Diagnosis of Infectious Diseases

Fall of odd years. 2(2-0) Interdepartmental with Medical Technology. Administered by Medical Technology Program. RB: (MMG 451 and MMG 464)

Laboratory techniques for diagnosing infectious diseases in humans. Emphasis on differential diagnosis and correlation of microbiological results with serology, hematology, and clinical chemistry.

890 **Problems in Veterinary Pathology**

Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Faculty supervised work on an experimental, theoretical or applied problem in veterinary pathology.

Problems in PathologyFall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Faculty supervised work on an experimental, theoretical or applied problem in pathology.

Pathology Seminar

Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Approval of department.

Presentation and discussion of current topics in pathology by departmental graduate students, faculty or outside speakers.

Pathology Case Discussion Seminar

Fall, Spring. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (DVM and ENROLPROFV) DVM degree or current enrollment as a professional veterinary student required

Utilization of a group of theme-based veterinary cases to train pathology residents and graduate students in diagnostic pathology.

Master's Thesis Research

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Approval of department.

Master's thesis research.

901 Investigating the Lung

Fall of even years. 2(2-0) Interdepartmental with Large Animal Clinical Sciences; Physiology. Administered by Department of Large Animal Clinical Sciences. R: Open only to graduate students.

Integrative biology of the lung; structure and function; molecular, cellular, and organ responses to iniury.

999 **Doctoral Dissertation Research**

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 42 credits in all enrollments for this course. R: Admission to doctoral program in Pathology.

Doctoral dissertation research.

PEDIATRICS

PED

Department of Pediatrics and Human Development College of Osteopathic Medicine

Special Problems in Pediatrics

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.

Experimental, theoretical, or applied problems under faculty direction.

Pediatrics Clerkship 600

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate-professional students in the colleges of Osteopathic Medicine and Human Medicine upon completion of Units I and II.

Practical clinical exposure in the area of pediatrics.

Primary Care Ambulatory Clerkship

Fall, Spring, Summer. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course. Interdepartmental with Internal Medicine; Osteopathic Surgical Specialties; Osteopathic Medicine; Psychiatry; Family and Community Medicine. RB: Successful completion of the preclerkship requirements in College of Osteopathic Medicine Units I and II.

A 24-week ambulatory care continuity experience involving 12 weeks in a multidisciplinary environment (family medicine, pediatrics, and internal medicine), 4 weeks in family medicine and 8 weeks in specialty areas (internal medicine, surgery, pediatrics, and obstetrics and gynecology). Didactic sessions are scheduled concurrently.

619 **Ambulatory Care Clerkship**

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 15 credits in all enrollments for this course. Interdepartmental with Family Practice; Medicine. Administered by Department of Family Practice. RB: (FMP 602) R: Open only to graduate-professional students in College of Human Medicine.

Continuous and comprehensive patient care under supervision of appropriate physicians.

620 **Directed Studies**

Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course. RB: (PED 600) R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.

Study in general or specialty pediatrics.