

## PEDIATRICS

## PED

(Established effective January 1, 1979.)

### College of Osteopathic Medicine

#### 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*

(O M 652.) 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. PED 600 or approval of department. Study in general or specialty pediatrics.

## PEDIATRICS AND HUMAN DEVELOPMENT

## PHD

(Name changed July 1, 1979. Formerly Department of Human Development.)

### College of Human Medicine

#### 520. *Genetics Clinic*

Fall, Winter, Spring, Summer. 1 to 3 credits. My 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.

#### 531. *Medical Genetics*

Spring. 1(1-0) ANT 544 or approval of department.

Basic genetic principles and their application to clinical medicine, prenatal genetic diagnosis, exercises in genetic counseling and the importance of relevant laboratory tests.

#### 532. *Phenomena of Development*

Fall. 5(5-0) PHD 531 or approval of department.

Normal psychological and physical development of the human including intellectual, social, emotional and endocrinological growth from infancy through adolescence. Clinical examples highlight deviations from the normal course of development.

#### 590. *Special Problems in Human Development*

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Human Medicine students or approval of department.

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

#### 608. *Pediatric Specialty Clerkship*

Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 43 credits. H M 602; primary clerkship.

Clinical experience with pediatric patients under the direction of members of the faculty of the Department of Human Development and community pediatricians. Fall, Saginaw. Winter, Lansing. Spring, Grand Rapids. Summer, Flint.

#### 609. *Human Development and Pediatric Sub-Specialties*

Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. H M 602.

Elected experiences in selected clinical and basic sciences related to pediatrics and human development.

## PHARMACOLOGY AND TOXICOLOGY

## PHM

(Effective July 1, 1978. Formerly Department of Pharmacology)

### College of Human Medicine College of Osteopathic Medicine College of Veterinary Medicine

#### 350. *Introductory Human Pharmacology*

Spring. 3(3-0) PSL 432 or PSL 241 or concurrently; or approval of department.

General principles; central nervous system, autonomic nervous system, cardiovascular and renal drugs; chemotherapy; and other selected basic topics.

#### 430. *Drug Abuse*

Fall of odd-numbered years. 4(4-0) Juniors or approval of department. Biology and chemistry recommended.

Actions, mechanism of action, toxicity and uses of drugs of abuse. Sociological and psychological aspects of drug abuse and the legal aspects of the sale and distribution of drugs are considered.

#### 480. *Special Problems*

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

Limited amounts of individual work on selected research problems for undergraduate students.

#### 520A. *Principles of Pharmacology*

Fall. 4(4-0) PSL 500B, PSL 500C.

Drug absorption, distribution, biotransformation, elimination, receptor theory and pharmacogenetics; chemical toxicity; autonomic nervous system, cardiovascular and renal pharmacology.

#### 520B. *Principles of Pharmacology*

Winter. 4(4-0) PSL 500A; BCH 501.

Drug absorption, distribution, biotransformation, elimination, antagonism; receptor theory and pharmacogenetics. Chemotherapy: antineoplastic, antiviral and antimicrobial agents. Toxicology and emergency therapies. Pharmacology related to the autonomic nervous system.

#### 521A. *Pharmacodynamics*

Winter. 5(4-2) PHM 520A. Primarily for students of Veterinary Medicine.

Endocrine, autocoid and central nervous system pharmacology; chemotherapy: antimicrobials, antihelminthics, antineoplastics.

#### 521B. *Pharmacodynamics*

Spring. 4(4-0) PHM 520B or PHM 520A.

Pharmacology of the central and peripheral nervous systems. Cardiovascular, renal and gastrointestinal drugs. Endocrine and autocoid pharmacology.

#### 810. *Synaptic Transmission*

Winter of odd-numbered years. 4(4-0) Approval of department.

Chemical and electrical aspects of nervous impulse transmission at synaptic and neuroeffector junctions and influences of drugs upon these processes. Intrinsic neuronal circuitry; reticular formation; thalamus; neocortex; cerebellum.

#### 811. *Advanced Renal and Autocoid Pharmacology*

Spring of even-numbered years. 4(4-0) PHM 521A or PHM 521B and approval of department.

Advanced concepts and current topics in renal and autocoid pharmacology.

#### 812. *Advanced Principles of Pharmacology*

Fall. 2(2-0) PHM 521A or PHM 521B, approval of department.

Pharmacodynamics, drug-receptor interactions, computer modeling, drug metabolism.

#### 813. *Cardiac Pharmacology*

Winter of even-numbered years. 4(4-0) PHM 520A, PHM 521A or PHM 520B, PHM 521B; PSL 801, PSL 802, PSL 803; and approval of department.

Effects of drugs on normal physiological and biochemical processes in cardiac cells are studied. Emphasis is placed on mechanisms of drug action.

#### 814. *Advanced Principles of Toxicology*

Spring of even-numbered years. 4(4-0) PHM 812.

Current biochemical and physiological mechanisms of toxicity on major organ systems. Mechanisms of mutagenicity, carcinogenicity and teratology.

#### 870. *Problems*

Fall, Winter, Spring, Summer. 2 to 4 credits. May reenroll for a maximum of 12 credits. Approval of department.

Limited amounts of individual work on selected research problems for first year graduate students in the Department of Pharmacology and Toxicology.

#### 899. *Master's Thesis Research*

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

Individual work on research problems for the master's degree in pharmacology.

#### 910. *Seminar*

Fall, Winter, Spring. 1(1-0) May reenroll for a maximum of 3 credits. Approval of department.

Discussion of recent topics on pharmacology by departmental or outside speakers, or reporting of research efforts by graduate students of the Department of Pharmacology and Toxicology.