

## Description — Pediatrics and Human Development

### of Courses

## 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.

#### 571. Infant through Adolescent Development and Genetics

Winter. 4(4-0) H M 570

Characteristics of physical, cognitive, language, social and emotional development, infancy through early adolescence. Genetic basis of development. Interaction of biologic, psychological and social factors in the developmental process.

#### 573. Behavioral Problems: Infancy through Adolescence

Fall. 3(3-0) H M 572. Interdepartmental with the Department of Psychiatry.

Origin, course and treatment of disorders of function and behavior in infancy through early adolescence commonly seen by physicians. Emphasis on role of development and biopsychosocial interaction.

#### 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.

#### 607. Ambulatory Care Clerkship

Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits. FMP 602. Interdepartmental with the departments of Family Practice, and Medicine. Administered by the Department of Family Practice.

Outpatient experience, lasting an equivalent of 34 half-days and extending over a minimum of 26 weeks. Continuous and comprehensive patient care under supervision of appropriate physicians.

#### 608. Pediatric Specialty Clerkship

Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 43 credits. FMP 602.

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. PHD 608.

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

#### 610. Ambulatory Pediatrics

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Clinical experience in outpatient and community settings involving ongoing child health care including chronic medical illnesses and common behavioral problems.

#### 611. Infectious Diseases

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Combined office or clinic and inpatient experience in evaluating and managing pediatric patients with infectious diseases.

#### 612. Neonatology

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Clinical experience involving modern neonatal techniques and care patterns for the sick neonate.

#### 613. Pediatric Cardiology

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Office, clinic and hospital experience in diagnostic and therapeutic pediatric cardiology including special diagnostic procedures.

#### 614. Pediatric Endocrinology and Metabolism

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Clinic and hospital experience in evaluating patients with endocrine and metabolic disorders.

#### 615. Pediatric Hematology and Oncology

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. PHD 608.

Clinical experience in evaluating and managing pediatric patients with common hematologic and oncologic disorders.

#### 450. Introduction to Chemical Toxicology

Spring. 3(3-0) B S 210, B S 211, B S 212, CEM 242.

Potential risk of environmental chemicals to animal and human health.

#### 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.

#### 520. Medical Pharmacology I

Fall. 4(4-0) PSL 500A or PSL 500E; BCH 501 or BCH 512.

Drug absorption, distribution, biotransformation, elimination, antagonism; receptor theory and pharmacogenetics. Cardiac and renal drugs, pharmacology related to the autonomic nervous system.

#### 521. Medical Pharmacology II

Winter. 4(4-0) PHM 520.

Pharmacology of the central and peripheral nervous systems. Chemotherapy: antineoplastic, antiviral and antimicrobial agents. Toxicology and emergency therapies. Endocrine and autacoid pharmacology.

#### 554. Veterinary Pharmacology and Toxicology I

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.

#### 555. Veterinary Pharmacology and Toxicology II

Winter. 5(4-2) PHM 554.

Endocrine, autacoid and central nervous system pharmacology; chemotherapy: antimicrobials, anthelmintics, antineoplastics.

#### 810. Synaptic Transmission

Spring 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.

#### 813. Cardiac Pharmacology

Winter of even-numbered years. 4(4-0) PHM 555 or PHM 521; PSL 801, approval of department.

Effects of drugs on normal physiological and biochemical processes in cardiac cells. Emphasis is placed on cell electrophysiology and ion flux.

#### 814. Advanced Principles of Toxicology

Spring of even-numbered years. 4(4-0) PHM 521 or PHM 555.

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

#### 820. Advanced General Pharmacology

Fall. 3(2-2) PHM 520 or concurrently.

Discussions, demonstrations and laboratories designed to supplement information provided in PHM 520 on the pharmacokinetics and actions of drugs that influence the autonomic and cardiovascular systems.

## PHARMACOLOGY AND TOXICOLOGY PHM

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

#### 350. Introductory Human Pharmacology

Winter, Spring. 4(4-0) 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.