

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. 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.

533. Genetics for Medical Practice
Fall. 3(3-0) BCH 512 or approval of department.
Genetic principles including molecular genetics and their application to clinical medicine and the etiology of disease.

571. Infant through Adolescent Development
Winter. 3(3-0) H M 570
Characteristics of physical, cognitive, language, social and emotional development, infancy through early adolescence. Interaction of biologic, psychologic and social factors in the developmental process.

573. Behavioral Problems: Infancy through Adolescence
Fall. 2(2-0) 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.

617. Pediatric Pulmonary Disease Clerkship
Fall, Winter, Spring, Summer. 6 credits. May reenroll for a maximum of 12 credits. PHD 608.
Inpatient and outpatient clinical experiences in evaluating and managing pediatric patients with a range of pulmonary disease problems. Diagnostic procedures, clinically relevant physiology, current research.

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.

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.