599. Doctoral Dissertation Research  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

600. Pediatrics Clerkship  
Fall, Winter, Spring, Summer. 6 or 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 designed to achieve proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management and therapy.

601. Directed Studies  
Fall, Winter, Spring, Summer. 2 to 4 credits. PED 600 or approval of department. Study in general or specialty pediatrics.

602. 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 inborn errors of metabolism and perform diagnostic procedures.

603. Medical Genetics  
Fall. I(1-0). Admission to a college of medicine 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.

604. Phenomena of Development  
Fall. S(5-0). PHD 531 or approval of department.

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.

607. Ambulatory Care Clerkship  
Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits. H M 602. Interdepartmental with the departments of Community Health Science, Family Practice, and Medicine. Administered by the Department of Family Practice. 

608. Pediatric Specialty Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 43 credits. H M 602. Pediatric specialty clerkship. Clinical experience with pediatric patients under the direction of members of the faculty of the Department of Human Development and community pediatricians. Fall, Summer, Fall, Winter, 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.

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 oncolgic disorders.

PHARMACOLOGY AND TOXICOLOGY  
PHM

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

350. Introductory Human Pharmacology  
Spring. 3(3-0) PSL 242 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.

490. 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.

503. Introduction to Medical Biology  

520. Medical Pharmacology I  
(520B) Fall. 4(4-0) PHM 500A, PSL 500A, BCH 510, or BCH 512. 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.

521. Medical Pharmacology II  
(521B) Winter. 4(4-0) PHM 520. Pharmacology of the central and peripheral nervous systems. Cardiovascular, renal and gastrointestinal drugs. Endocrine and autacoid pharmacology.

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