

**PEDIATRICS AND PHD
HUMAN DEVELOPMENT**

**Department of Pediatrics and
Human Development
College of Human Medicine**

523 Genetics for Medical Practice
Summer. 1(1-0) Interdepartmental with Biochemistry and Molecular Biology. R: Graduate-professional students in colleges of Human and Osteopathic Medicine. SA: BCH 523

Basic principles of genetics for medical students.

526 Molecular Biology and Medical Genetics
Fall. 2 credits. Interdepartmental with Biochemistry and Molecular Biology. Administered by Department of Biochemistry and Molecular Biology. R: Restricted to students enrolled in the M.D. (CHM) or D.O. (COM) programs. SA: BCH 526 Not open to students with credit in PHD 523.

Basic principles of human medical genetics; storage and expression of genetic information; transmission of genetic information to progeny.

591 Special Problems in Human Development
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Graduate-professional students in colleges of Human and Osteopathic Medicine.

Work under the direction of a faculty member on an experimental, theoretical, or applied problem.

600 Pediatric Specialty Clerkship
Fall, Spring, Summer. 6 to 24 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to graduate-professional students in College of Human Medicine. Completion of preclinical CHM curriculum.

Multidisciplinary approach to children and their families in a health care setting. Integrated biological, behavioral, and clinical sciences in assessing and planning children's health care needs.

601 Human Development and Pediatric Subspecialties
Fall, Spring, Summer. 6 to 24 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

Experience in clinical, behavioral, and basic sciences related to pediatrics and human development.

602 Ambulatory Pediatrics
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

Clinical experience in outpatient and community setting involving ongoing child health care.

603 Pediatric Infectious Diseases Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

Office, clinic, and inpatient experiences in evaluating and managing pediatric patients with infectious diseases.

604 Neonatology
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

Clinical experiences: modern neonatal techniques and care patterns for neonates including follow up.

605 Pediatric Cardiology Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

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

606 Pediatric Endocrinology and Metabolism Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

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

607 Pediatric Hematology and Oncology
Fall, Spring, Summer. 6 to 12 credits. Fall: Kazoo, Flint, GR, Saginaw, UP, Lansing. Spring: Same as above. Summer: Same as above. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate professional students in College of Human Medicine.

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

608 Pediatric Pulmonary Disease Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (PHD 600) R: Open only to graduate-professional students in College of Human Medicine.

Inpatient and outpatient clinical experiences in evaluating and managing pediatric patients with pulmonary problems. Diagnostic procedures, clinically relevant physiology, current research.

633 Extended Clinical Experience
Fall, Spring, Summer. 6(6-0) Fall: All six(6) campuses. Spring: All six(6) campuses. Summer: All six(6) campuses. P:M: (PHD 600)

Based in community hospitals and ambulatory sites, this is a 4 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.

635 Core Competencies I
Fall, Spring, Summer. 2(2-0) Fall: Flint-GR-Saginaw-Lansing-Kalamazoo-UP. Spring: same as above. Summer: save as above. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Human Medicine; Family Practice; Medicine. Administered by College of Human Medicine. R: Open only to graduate-professional students in College of Human Medicine.

Core knowledge and skills from an interdisciplinary perspective.

637 Core Competencies III
Fall, Spring, Summer. 2(2-0) Fall: same as below. Spring: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. Summer: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Human Medicine; Family Practice; Medicine; Obstetrics, Gynecology and Reproductive Biology; Surgery. Administered by College of Human Medicine. R: Open only to graduate-professional students in College of Human Medicine.

Core knowledge and skills from an interdisciplinary perspective.

**PHARMACOLOGY PHM
AND TOXICOLOGY**

**Department of Pharmacology
and Toxicology
College of Veterinary Medicine**

350 Introductory Human Pharmacology
Spring. 3(3-0) P: (PSL 250) or (PSL 431 and PSL 432) R: Not open to freshmen.

General principles of pharmacology. Central and autonomic nervous systems. Cardiovascular and renal drugs. Chemotherapy. Anti-infective drugs and endocrine agents.

450 Introduction to Chemical Toxicology
Spring. 3(3-0) P: (BS 110 or LBS 144) and (BS 111 or LBS 145) and (CEM 251) R: Not open to freshmen or sophomores.

Mammalian toxicology. Disposition of chemicals in the body, detoxication, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents.

480 Special Problems
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Approval of department.

Individual work on selected research problems.

556 Veterinary Pharmacology
Fall. 5(5-0) R: Completion of semester 2 of the graduate professional program in the College of Veterinary Medicine.

Drug absorption, disposition, biotransformation, excretion, pharmacokinetics. Pharmacologic agents of the autonomic nervous, cardiovascular, renal, central nervous, endocrine, and gastrointestinal systems.

557 Veterinary Toxicology
Spring. 2(2-0) R: Completion of semester 3 of the graduate professional program in the College of Veterinary Medicine.

Determinants of toxic responses, analytical toxicology, genetic toxicology, and toxin management. Diagnosis, prevention, and treatment of common toxicoses.