Description — Pediatrics and Human Development

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 25 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 603.
   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 606.
   Elected experience 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.

**PHARMACOLOGY AND TOXICOLOGY PHM**

**College of Human Medicine**

**College of Osteopathic Medicine**

**College of Veterinary Medicine**

350. Introductory Human Pharmacology
   Winter, Spring. (4-4) or 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) Junior 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 500B 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) PSL 520.
   Pharmacology of the central and peripheral nervous systems. Chemotherapy: antineoplastic, antiviral and antimicrobial agents. Toxicology and emergency therapies. Endocrine and autonomic 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, antacid and central nervous system pharmacology; chemotherapy: antimicrobials, antihelminthics, antineoplastics.

810. Synaptic Transmission
   Spring of odd-numbered years. 4(4-0)
   Approval of department.
   Chemical and electrical aspects of nerve impulse transmission at synaptic and neuromuscular junctions and influences of drugs upon these processes. Intracellular and extracellular events; tetanic potentiation, formation; thalamus; cerebellum.

813. Cardiac Pharmacology
   Winter of even-numbered years. 4(4-0) PSL 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) PSL 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) PSL 530 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.
PHM 520, PHM 820: This course complements PHM 521 (Pharmacodynamics) with increased coverage of toxicology, chemotherapy (antibiotic, anticancer, and antiparasitic) and central nervous system drugs, including narcotic analgesics and psychoactive agents.

PHM 821: Advanced General Pharmacology

PHM 839: Systems Neuroscience

PHS 500E: Credits.

PSL 500E: Credits.

PSC 539: Introduction to reproductive endocrinology.

PHM 521, PHM 821: Limited amounts of individual work on selected research problems for first year graduate students. Approval of department.

PHM 510, PHM 810; PHM 820; PHM 839; PHM 841: An inquiry into the nature of the right and the good, addressed to such fundamental problems as the objectivity of moral judgments, the criteria of right and wrong, and the grounds of moral responsibility.

PHM 520, PHM 820: An examination of such basic philosophical problems as free will and determinism, the existence of God, the relation of mind and body, and the scope and limits of human knowledge.

PHM 510, PHM 810; PHM 820: An examination of deductive and inductive reasoning and of such topics as rational argumentation, fallacies, definition, meaning, truth, and evidence. Designed to improve students' capacities to read and think critically.

PHM 500E: Credits.

PHM 820: Credits. May reenroll for a maximum of 12 credits. Approval of department.

PHM 510, PHM 810; PHM 820: An introduction to contrasting classics of literary and philosophical importance. Primary texts from such philosophers as Plato, Lucretius, Descartes, Hume, Nietzsche, James, Russell and Sartre will be read and discussed.

PHM 520, PHM 820; PHM 839: Spring, Summer. 3(3-0) Three credits in philosophy or approval of department.

PHM 510, PHM 810; PHM 820; PHM 839: Approval of department. Examination of such thinkers as Boyce, Pierce, James, Dewey, Whitehead and Santayana, illustrating classic American contributions to philosophy.

PHILOSOPHY

College of Arts and Letters

Each of the courses PHL 101, PHL 102, PHL 103 is an independent gateway to a major area of philosophy. Together they provide a comprehensive introduction to philosophical inquiry. The courses may be taken independently and in any order.

PHILOSOPHY — Description of Courses

101. Introduction to Philosophy: Ethics and Value (A)

Fall, Winter, Spring, Summer. 3(3-0)

Students may not receive credit for both PHL 101 and PHL 330.

An inquiry into the nature of the right and the good, addressed to such fundamental problems as the objectivity of moral judgments, the criteria of right and wrong, and the grounds of moral responsibility.

102. Introduction to Philosophy: Knowledge and Reality (A)

Fall, Winter, Spring, Summer. 3(3-0)

An introduction to contrasting classics of literary and philosophical importance. Primary texts from such philosophers as Plato, Lucretius, Descartes, Hume, Nietzsche, James, Russell and Sartre will be read and discussed.

200H. Honors Work

Fall, Winter, Spring. 1 to 16 credits. Approval of department.

Taken together, PHL 211, PHL 212 and PHL 213 provide a comprehensive introduction to the history of western philosophy. It is recommended that these courses be taken in sequence. However, if only one course is taken it may be any one of these, since each course is self-contained and may be taken independently of the others.

211. Ancient Philosophy (A)

Fall, Winter, Spring. 3(3-0)

An introduction to the history of philosophy: the Greek and Roman periods, with emphasis on Plato and Aristotle.

212. Medieval and Early Modern Philosophy (A)

Winter, Spring. 3(3-0) PHL 211 recommended.

An introduction to the history of philosophy: the Middle Ages to the rise of modern science, with emphasis on Aquinas, Descartes, Spinoza and Leibniz.

213. Modern Philosophy (A)

Fall, Spring. 3(3-0) PHL 212 recommended.

An introduction to the history of philosophy: the Enlightenment to the nineteenth century, with emphasis on Hume and Kant and such other philosophers as Locke, Berkeley, Hegel, Kierkegaard and Nietzsche.

312. Chinese Philosophy

Spring. 3(3-0)

Comparison and contrast of Confucianism, Taoism, and Buddhism and their metaphysical and cultural roots. Concepts of enlightenment and human nature.

315. American Philosophy

Spring of odd-numbered years. 3(3-0)

Three credits in philosophy or approval of department.

Examination of such thinkers as Boyce, Pierce, James, Dewey, Whitehead and Santayana, illustrating classic American contributions to philosophy.

323. Existentialism

Fall, Winter, Spring. 3(3-0) Three credits in philosophy or approval of department.

Such authors as Husserl, Jaspers, Kierkegaard, Marcel, Nietzsche, Sartre and such topics as hope, anxiety, bad faith, subjectivity, freedom, social being, and phenomenological method.

330. Elements of Ethics

Fall, Winter, Spring. 3(3-0) Juniors. Students may not receive credit for both PHL 101 and PHL 330.

An inquiry into the nature of the right and the good, addressed to such fundamental problems as the objectivity of moral judgments, the criterion of right and wrong, and the grounds of moral responsibility.

337. Logic I

Fall, Winter, Spring. 4(4-0)

Modern symbolic methods in deductive reasoning. The logic of compound and general sentences.

338. Logic II

Winter, Spring. 4(4-0) PHL 337 or approval of department.

The logic of identity, functions and definitions. The axiomatic method and its applications.

340. Moral Problems in Medicine and the Life Sciences

Fall, Winter, Spring. 4(4-0) Juniors.

Philosophical aspects of euthanasia, allocation of scarce medical resources, experimentation and informed consent, truth telling and the doctor-patient relationship, genetic counseling, genetic engineering, behavior control, and health care delivery.

341. Philosophical Aspects of Feminism

Fall, Winter, Spring. 4(4-0)

Conceptual issues in feminist theory. Such concepts as oppression, sexism and chauvinism, feminist separatism, rape, respect and self-respect, personhood, power and control and feminism will be analyzed and explored.

342. Philosophy of the Counter Culture

Fall. 3(3-0)

Students will examine counter-cultural critiques of contemporary culture and values; and develop, articulate, defend their own views on such issues, especially as those issues immediately affect their own lives.

343. Ethical Issues in the Social Sciences

Winter. 3(3-0)

Philosophical treatment of ethical issues arising from the social scientists' conflicting obligations to their subjects, science, profession, career, personal values and society.

344. Ethical Issues in Nursing

(PHL 461.) Winter. 2(2-0) PHL 340 or approval of instructor.

Application of ethical analysis, principles, and reasoning to such topics as parentalism, truthfulness, coercion, confidentiality, and autonomy in the nursing context.