Courses are subject to revision and final approval.

PEDiATRICS AND HUMAN DEVELOPMENT

604*. Pediatric Pulmonary Disease Clerkship
Fall, Spring, Summer. 6 to 12 credits in increments of 6 credits. May reenroll for a maximum of 12 credits.
P: PHD 600. R: Open only to graduate-professional students in the College of Human Medicine.
Inpatient and outpatient clinical experiences with patients with pulmonary problems. Diagnostic procedures, clinically relevant physiology, current research.

580*. Health Professionals’ Role in the Treatment of Substance Abuse
Spring. 1/05-00
R: Open only to graduate and graduate-professional students in the colleges of Human Medicine, Nursing, and Osteopathic Medicine or approval of department.
Practical knowledge base for recognizing and dealing with individuals affected by substance abuse.
QA: PED 580

590*. Special Problems in Pediatrics
Fall, Spring, Summer. 1 to 8 credits. May reenroll for a maximum of 8 credits.
P: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.
Practical clinical exposure in the area of pediatrics.
QA: PED 600

600*. Pediatrics Clerkship
Fall, Spring, Summer. 6 to 12 credits in increments of 6 credits.
P: Open only to graduate-professional students in the colleges of Osteopathic and Human Medicine.
2 years of medical school; approval of department.
Study in general or specialty pediatrics.
QA: PED 620

PHARMACOLOGY AND TOXICOLOGY

PHM

350*. Introductory Human Pharmacology
Fall, Spring. 3/3-0
P: PSL 240, PSL 241 or concurrently R: Sophomores or higher
General principles, CNS and autonomic nervous system, cardiovascular and renal drugs; chemotherapy other selected basic pharmacology topics.
QA: PHM 350

430*. Drug Abuse
Fall of odd-numbered years. 3/3-0
R: Juniors and above, Lower class standing by approval of Department.
Fundamentals of pharmacology, pathology and neuro-science for students under standing of the pharmacodynamics of drugs of abuse; survey of other aspects of drug abuse.
QA: PHM 430

450*. Introduction to Chemical Toxicology
Spring. 3/3-0
P: BS 210, 211 and 212; CEM 242 R: Juniors and above
Basic concepts of mammalian toxicology, including disposition of chemicals in the body, detoxication, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents discussed.
QA: PHM 450

540*. special problems
Fall, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits.
P: Approval of individual faculty member each term.
Limited amounts of individual work on selected research problems for undergraduate students.
QA: PHM 540

559*. Veterinary Pharmacology and Toxicology I
Fall, Spring. 3/3-0
P: Completion of Year 1 of the College of Veterinary Medicine. R: Year 2 College of Veterinary Medicine Veterinary Medicine none
Drug absorption, distribution, biotransformation, elimination, pharmacogenetics, chemical toxicology; autonomic nervous system, cardiovascular and renal pharmacology.
QA: PHM 559

565*. Veterinary Pharmacology
Fall. 5/5-0
P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine Veterinary Medicine none
General principles of pharmacology (drug absorption, disposition, biotransformation, excretion, pharmacokinetics), pharmacologic agents of the autonomic nerve, cardiovascular, renal, central nervous, endocrine and gastrointestinal systems.
QA: PHM 565

577*. Veterinary Toxicology
Spring. 3/3-0
P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine Veterinary Medicine none
Principles of toxicology (determinants of toxic responses, analytical toxicology, genetic toxicology, toxic management, diagnosis, prevention, and treatment of common toxicoses).

583. Medical Pharmacology
Summer. 3/3-0
R: Graduate-professional students in colleges of Human and Osteopathic Medicine.
General principles of pharmacology and selected drugs. Rational drug therapy.

594*. Veterinary Toxicology
Spring. 3/3-0
P: Admission to the College of Veterinary Medicine. R: Year 2 College of Veterinary Medicine Veterinary Medicine none
Pharmacological basis and pathological features of mechanisms of toxicity of chemicals with emphasis on clinical manifestations, diagnosis, prevention, and treatment.

810*. Synaptic Transmission
Spring of odd-numbered years. 3/3-0
P: Approval of Department
Major and electrical aspects of nerve impulse transmission at synaptic and neuro-effector junctions. Introduction of drugs on these processes.
QA: PHM 810

813*. Cardiac Pharmacology
Spring of even-numbered years. 3/3-0
P: PHM 810 or equivalent
Biochemical, molecular and physiological mechanisms of toxicology; responses of major organ systems to chemical insult; mechanisms of mutagenesis and carcinogenesis.
QA: PHM 814

815*. Concepts in Tumorigenesis
Spring of odd-numbered years. 3/3-0
P: BCH 451, 452 and 453 or equivalent; PSL 431, 432 and 433 or equivalent; R: Approval of department
Examination and discussion of literature for each topic in tumorigenesis.
QA: PHM 815

819*. Principle of Drug-Tissue Interactions
Summer. 3/3-0
R: Graduate Students Approval of department
Comprehensive overview of the important general principles necessary to understand the interaction of chemicals with biological systems.
QA: PHM 819

830*. Drug Actions, Effects and Uses
Fall. 3/3-0
P: PHM 810 R: Graduate Students Approval of department
Comprehensive presentation of the major principles of how the major drugs act physiologically and biochemically.
QA: PHM 821

827*. Advanced Neurobiology
Fall. 4/4-0
Interdepartmental with the Department(s) of Zoology, Physiology, R: Graduate Students Approval of department
Function of nervous system at cellular level; membrane biophysics and potentials, synaptic transmission.
QA: PHM 827

835*. Systems Neuroanatomy
Spring of odd-numbered years. 4/4-0
Interdepartmental with the Department(s) of Anatomy, Physiology, R: Graduate Students
Anatomy, pharmacology, and physiology of multicellular neural systems, including major sensory, motor, autonomic and chemo-regulatory systems in brain of vertebrates.
QA: PHM 839

Courses with an asterisk (*) have not been approved by the University Committee on Curriculum.
PHARMACOLOGY AND TOXICOLOGY

201. History of Western Philosophy: Ancient and Medieval
Fall. 3(3-0)
Greek philosophy with emphasis on Plato and Aristotle: Roman philosophy; and medieval philosophy.
QA: PHL 211

211. History of Western Philosophy
Fall, Spring. 3(3-0)
P: PHL 210 recommended
Philosophy from the Renaissance through the eighteenth century, with emphasis on such philosophers as Descartes, Spinoza, Locke, Hume, Kant, Hegel, Kierkegaard and Nietzsche.
QA: PHL 212

312*. Chinese Philosophy
Spring. 3(3-0)
R: Not open to freshmen and sophomores
Central traditions in the history of Chinese philosophy: Confucianism, Taoism, Chan Buddhism, Neo-Confucianism.
QA: PHL 312

320*. Existentialism
Fall, Spring. 3(3-0)
P: One PHL course
Husserl, Jaspers, Kierkegaard, Marx, Nietzsche, Sartre, and de Beauvoir. Topics such as hope, anxiety, bad faith, subjectivity, freedom, social being, and phenomenological method.
QA: PHL 323

330*. Formal Reasoning I
Fall, Spring. 4(4-0)
Formal methods in deductive reasoning. Logics of connectives and quantifiers, including identity, functions, and descriptions.
QA: PHL 337 PHL 358

331*. Formal Reasoning II
Fall, Spring. 4(4-0)
QA: PHL 337 QA: PHL 358

340*. Ethics
Fall, Spring. 3(3-0)
P: One PHL course
Inquiry through the writings of some important theorists, their critics and their contemporary followers. Aristotle, Hume, Kant, Mill, Sidgwick.
QA: PHL 337 PHL 411

344*. Ethical Issues in Health Care
Fall, Spring. 4(4-0)
R: Not open to freshmen and sophomores
Termination of treatment, truth-telling, informed consent, human experimentation, reproductive rights, allocation of scarce resources, justice and the health care system.
QA: PHL 340

350*. Moral and Political Issues
Fall. 3(3-0)
P: One PHL course
Jusitice, rights and responsibilities. Topics such as equality of opportunity, justice for the aged and future generations, and abortion.
QA: PHL 340

354*. Philosophy of Law
Fall, Spring. 3(3-0)
P: One PHL course or two PLS courses
Legal concepts such as punishment, responsibility, rights and duties, and judicial decisions. Legal theories such as natural law, positivism and realism.
QA: PHL 350

355*. Philosophical Aspects of Feminism
Fall, Spring. 4(4-0)
Conceptual and normative issues in feminist theory, such as sexism, oppression, coercion, control, power, equality, personhood, respect and self-respect, rape, separations, community, intimacy and autonomy.
QA: PHL 351

357*. Philosophy of Karl Marx
Spring. 3(3-0)
P: One PHL course
Marx's philosophical thought and its bearing on science, religion, art and politics.
QA: PHL 356

360*. Philosophy of Language
Spring. 3(3-0)
P: One course in Philosophy.
Elementary topics in semantics, linguistic pragmatics, and philosophy of language. Meaning, denotation, speech acts, and linguistic relativity.
QA: PHL 357

365*. Nature of Science
Fall, Spring. 3(3-0)
P: One course in the biological, physical, or mathematical sciences.
Conflicting views about science and values. Such topics as scientific methodology, the objectivity and value neutrality of science, the presuppositions, goals, and limits of science; science and decision making.
QA: PHL 350

410*. Plato
Fall. 4(4-0)
P: PHL 210 or two other Philosophy courses
Development of Platonic philosophy from the early Socratic Academy. Emphasis on the middle dialogues, especially the Republic.
QA: PHL 311 QA: PHL 410

411*. Aristotle
Spring. 4(4-0)
P: PHL 210 or PHL 410 or two other Philosophy courses
R: Not open to freshmen and sophomores
Aristotle's major works and his major contributions to the sciences, metaphysics, ethics, and politics.
QA: PHL 211 ORPHL 410 QA: PHL 411 PHLA12

412*. Medieval Philosophy
Fall of even-numbered years. 3(3-0)
P: PHL 210 or two other Philosophy courses
R: Not open to freshmen and sophomores
Medieval philosophy from the fourth to the sixteenth centuries, emphasizing the contributions of Augustine and Aquinas.
QA: PHL 211 ORPHL 212 ORPHL 411 QA: PHLA14

413*. Continental Rationalism
Fall of odd-numbered years. 4(4-0)
P: PHL 210 or two other Philosophy courses
R: Not open to freshmen and sophomores
The rationalism of the eighteenth century, with emphasis on Descartes, Spinoza and Leibniz.
QA: PHL 212 QA: PHLA13