

**Descriptions—Pediatrics
of
Courses**

620. Directed Studies
Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
P: PED 600. R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.
Study in general or specialty pediatrics.
QA: PED 620

**PHARMACOLOGY AND
TOXICOLOGY PHM**

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

350. Introductory Human Pharmacology
Fall, Spring. 3(3-0)
P: PSL 250. 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.
QA: PHM 350

430. Drug Abuse
Fall of odd-numbered years. 3(3-0)
R: Not open to freshmen and sophomores.
Pharmacology, physiology, and neuroscience related to the pharmacodynamics of drugs of abuse.
QA: PHM 430

450. Introduction to Chemical Toxicology
Spring. 3(3-0)
P: BS 110, BS 111, CEM 251. R: Not open to freshmen and sophomores.
Mammalian toxicology. Disposition of chemicals in the body, detoxication, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents.
QA: PHM 450

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. Not open to students with credit in PHM 350 or PHM 430.
Individual work on selected research problems.
QP: PHM 350, PHM 430 QA: PHM 480

554. Veterinary Pharmacology and Toxicology I
Fall. 3(3-0)
R: Completion of the first year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PHM 556.
Drug absorption, distribution, biotransformation, elimination, receptor theory and pharmacogenetics. Chemical toxicity. Autonomic nervous system, cardiovascular and renal pharmacology.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1993.
QA: PHM 554

555. Veterinary Pharmacology and Toxicology II
Spring. 4(4-0)
R: Completion of the first year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PHM 556.
Endocrine, autocrine and central nervous system pharmacology. Chemotherapy. Antimicrobials, antihelminthics, and antineoplastics.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1993.
QA: PHM 555

556. Veterinary Pharmacology
Fall. 5(5-0)
R: Completion of 2 semesters of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PHM 554 or PHM 555.
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 3 semesters of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PHM 594.
Determinants of toxic responses, analytical toxicology, genetic toxicology, and toxin management. Diagnosis, prevention, and treatment of common toxicoses.
QA: PHM 594

563. 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)
R: Completion of the second year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PHM 557.
Pharmacological basis and pathological features of animal diseases caused by common toxic chemicals. Clinical manifestations, diagnosis, prevention, and treatment.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1993.
QA: PHM 594

658. Research Problems in Pharmacology and Toxicology
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Completion of 4 semesters of the graduate-professional program in the College of Veterinary Medicine. Approval of department.
Selected research problems in pharmacology or toxicology.
QP: PHM 554, PHM 555, PHM 594

810. Synaptic Transmission
Spring of even-numbered years. 3(3-0)
R: Approval of department.
Chemical and electrical aspects of nerve impulse transmission at synaptic and neuroeffector junctions. Influence of drugs.
QA: PHM 810

813. Cardiac Pharmacology
Spring of odd-numbered years. 3(3-0)
P: PHM 820. R: Open only to graduate students. Approval of department.
Effects of drugs on normal physiological and biochemical processes in cardiac cells.
QA: PHM 813

814. Advanced Principles of Toxicology
Spring of odd-numbered years. 3(3-0)
P: PHM 819.
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 even-numbered years. 2(2-0)
P: BCH 462, PSL 432, PSL 460. R: Approval of department.
Examination and discussion of literature in tumorigenesis.
QP: PSL 433, BCH 453 QA: PHM 815

819. Principle of Drug-Tissue Interactions
Summer. 5(5-0)
R: Open only to graduate students. Approval of department.
General principles relevant to the interaction of chemicals with biological systems.
QA: PHM 819

820. Drug Actions, Effects and Uses
Fall. 5(5-0)
P: PHM 819. R: Open only to graduate students. Approval of department.
Major principles of physiological and biochemical actions of major drugs.
QA: PHM 820, PHM 821

870. Research Rotation
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to first year graduate students in Pharmacology and Toxicology. Approval of department.
Individual work on selected research problems.
QA: PHM 870

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in Pharmacology and Toxicology. Approval of department.
QA: PHM 899

910. Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course.
R: Open only to graduate students. Approval of department.
Discussion of recent topics in pharmacology and toxicology by faculty or invited outside speakers. Students research reports.
QA: PHM 910

980. Problems
Fall, Spring, Summer. 2 to 5 credits. A student may earn a maximum of 20 credits in all enrollments for this course.
R: Open only to graduate students. Approval of department.
Limited work in selected research projects.
QA: PHM 980

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course.
R: Open only to graduate students in Pharmacology and Toxicology. Approval of department.
QA: PHM 999

PHILOSOPHY PHL

Department of Philosophy
College of Arts and Letters

130. Logic and Reasoning
Fall, Spring. 3(3-0)
R: Not open to students with credit in PHL 330.
Deductive and inductive reasoning. Topics such as rational argumentation, fallacies, definition, meaning, truth and evidence. Techniques for critical reading and thinking.
QA: PHL 103

200. Introduction to Philosophy
Fall, Spring. 3(3-0)
Theories of knowledge, values, and reality. Topics such as objectivity, relativism and cultural diversity, moral responsibility, aesthetic values, the self, existence of God, free will, minds and machines.
QA: PHL 101, PHL 102, PHL 330

210. 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